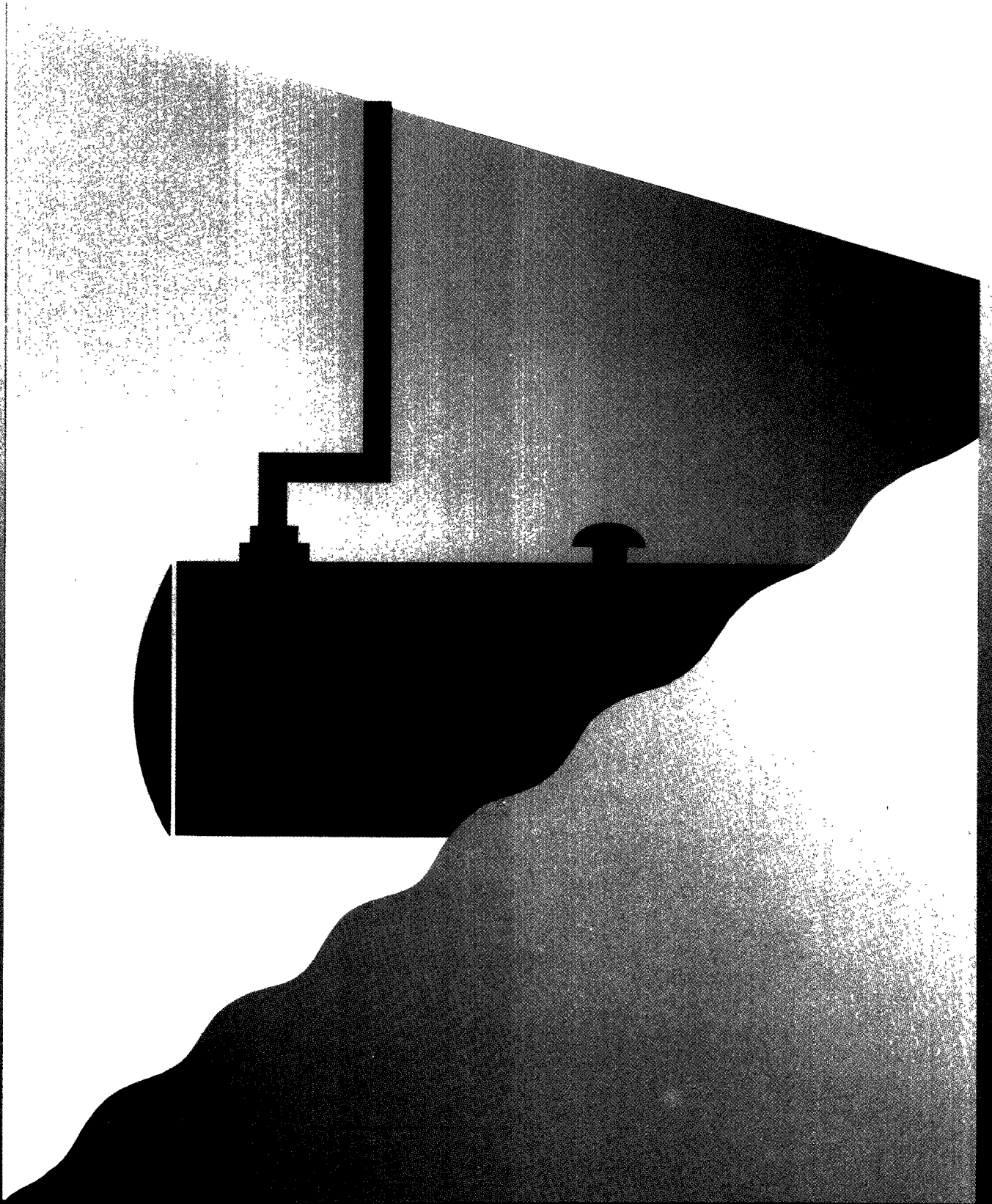




# **Financial Assurance Programs: A Handbook for States**



**FINANCIAL ASSURANCE PROGRAMS:  
A HANDBOOK FOR STATES**

**OFFICE OF UNDERGROUND STORAGE TANKS  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

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## **SECTION I**

### **SETTING UP A STATE ASSURANCE PROGRAM**

## **1. INTRODUCTION**

### **WHAT IS A STATE FINANCIAL ASSURANCE PROGRAM?**

A State financial assurance program is a State fund or insurance program that is structured explicitly to assist underground storage tank (UST) owners or operators to meet Federal and eventually State financial responsibility requirements for USTs. The purpose of this handbook is to assist States to design State financial assurance programs for USTs containing petroleum.

Insurance companies have little experience with the recently promulgated UST financial responsibility program and have been reluctant to provide UST coverage, partly because there is limited information about the expected scope and costs of future petroleum releases from USTs. As a result, State financial assurance programs will help UST owners and operators comply with the new Federal financial responsibility requirements and also provide a timely source of money for cleanups of petroleum releases. If such assurance programs are flexible, they can adapt to future situations, such as changes in cleanup rates (influenced by changes in UST release rates) or cleanup costs. For instance, the level of financial assurance coverage provided by a State fund could decrease as insurance becomes more available.

### **WHAT FEDERAL LAW REQUIRES**

Under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended in 1984 and 1986, Congress mandated that EPA establish financial responsibility requirements for the costs of cleaning up petroleum releases (termed "corrective action") and compensating third parties for damages caused by petroleum releases. Under EPA's regulations, UST owners and operators may demonstrate coverage for corrective action and third-party compensation costs using a variety of financial assurance mechanisms, including State funds or other State assurance programs (e.g., State-run insurance programs). The financial responsibility requirements are part of the overall UST program that includes technical standards, such as leak detection and corrosion protection requirements for new and existing USTs, and corrective action requirements, as well as State UST program approval procedures.

RCRA requires that all USTs at facilities engaged in petroleum refining, distribution, and marketing must provide a minimum level of assurance of \$1 million. Owners and operators may use a variety of mechanisms to demonstrate financial responsibility, including State funds, insurance, guarantees, surety bonds, letters of credit, qualification as a self-insurer, or other methods deemed appropriate by EPA or the State implementing Agency. Finally, recognizing the limited availability of financial assurance mechanisms, RCRA allows EPA to suspend enforcement of the requirements for particular classes of USTs when mechanisms are generally unavailable. Appendix A of the handbook contains a brief summary of the Federal financial responsibility requirements.

### **USING THIS HANDBOOK**

The first six chapters of this handbook, contained in Section I, describe the factors States should consider in establishing UST State financial assurance programs. The seventh chapter, under Section II, includes EPA information sources and descriptions of several State UST financial responsibility requirements. The appendices

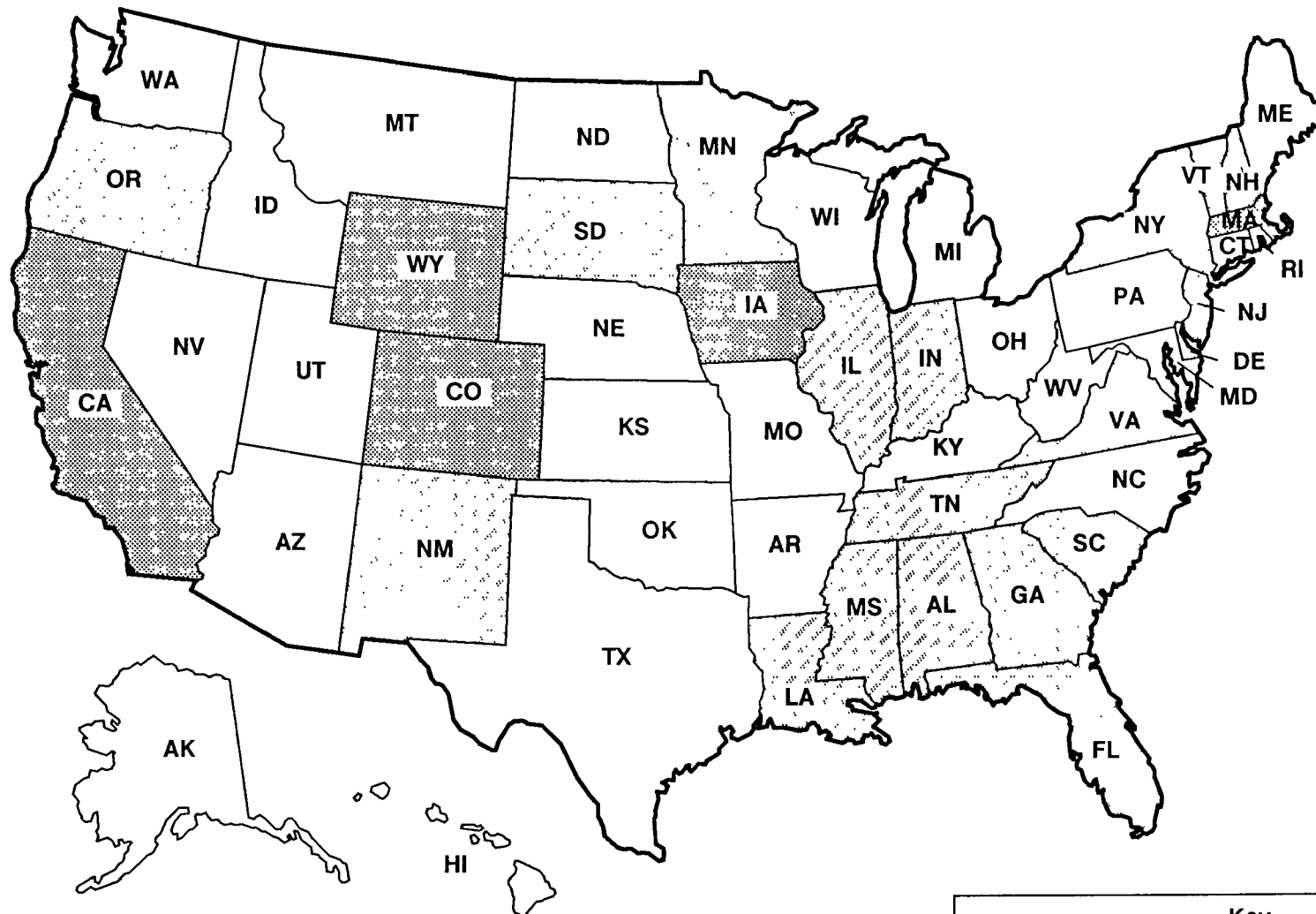
to the handbook, contained in Section III, provide additional detailed information on relevant financial responsibility topics.




The intended audience for the handbook includes employees of State environmental protection agencies and State insurance commissions, State legislators, and EPA Regional employees. EPA recognizes that financial assurance mechanisms may be difficult to obtain in the initial period following promulgation of EPA's financial responsibility requirements, that States, rather than EPA, will largely implement these requirements, and that only a few States currently have experience implementing UST financial assurance programs. Nonetheless, a number of States already have developed or are considering assurance programs in an effort to assist UST owners and operators in complying with financial responsibility requirements. Those States that have or are considering programs are listed in Exhibit 1-1. Finally, given the uncertainties about the cost and extent of future UST releases, EPA assumes that general information about State assurance programs would be more accurate and useful than quantitative estimates of expected program costs.

As a result, the handbook provides general information on several topics, including a process States can follow in determining their financial assurance goals and needs, the types of assurance programs possible, and the types of programs States currently have or are considering. Finally, it evaluates prototype State assurance programs and provides additional sources of information.

EXHIBIT 1-1

# Several States Have UST Assurance Programs (as of September 1988)



Key	
	- States with UST Assurance Programs
	- States considering UST Assurance Programs
	- States without UST Assurance Programs



## **2. DO YOU NEED AN ASSURANCE PROGRAM?**

No State is required to establish an UST financial assurance program (e.g., a State fund or State UST insurance program). Congress allowed UST owners or operators to use State assurance programs to demonstrate financial assurance because it recognized that the most common mechanism, insurance, may be unavailable for many UST owners or operators. In addition, other mechanisms, such as the financial test of self-insurance, may be available only to a few larger UST owners or operators. A State assurance program may be critical to most UST owners or operators to fund the costs of cleanups of UST releases and to meet Federal UST program requirements.

### **WHAT IS THE PROBLEM?**

To determine if your State needs an UST financial assurance program, first determine what type of problem you face. Are many UST releases in your State not cleaned up because the responsible owner or operator did not have enough money? Are UST owners having difficulty demonstrating financial responsibility? Are some tank owners or operators unable to meet insurance underwriting criteria? Will small businesses be forced to close because they cannot comply with the financial responsibility requirements? Why can't small businesses comply with the financial assurance requirements? Identifying and understanding the problems you want to address will guide your remaining efforts.

Once you have specified the problem, you need to examine what you know about the problem. Do you have information on the financial characteristics of UST owners in your State? Do you have information on the availability of UST insurance in the State? Do you know how many owners and operators will be able to use a financial test or self-insurance and thus not need assistance from the State (e.g., do you have information on the net worth of UST owners in the State)? Do you know the expected scope and costs of corrective action and third-party damages in the State? Answers to these and other questions will help you evaluate your options.

### **WHAT ARE YOUR GOALS?**

A State may have a number of goals in solving UST financial responsibility problems, some of which may overlap or conflict. Several potential goals are listed below.

#### **Increase Compliance**

To increase compliance with the financial responsibility requirements, a State can supplement coverage provided by financial assurance mechanisms available in the marketplace. A State may determine that available mechanisms fail to provide the full amount of required coverage or that available mechanisms are too costly. In addition, assurance programs may provide additional incentives for UST owners and operators to comply with technical standards for USTs required under Federal law (e.g., tank leak detection and monitoring requirements). A State assurance program, for example, could require that UST owners or operators demonstrate compliance with the technical standards before providing coverage for corrective action costs and third-party compensation.

### **Assist Small Businesses**

States may wish to assist small businesses that have difficulty obtaining financial assurance mechanisms or raising the capital required to comply with the program. Since many small businesses owning USTs provide basic services on which a community depends, State implementing agencies may want to ensure that financial support is available to such businesses. This goal could be satisfied by designing an assurance program (e.g., a loan fund) that would allow these small businesses to upgrade their tanks on schedule, but defer the cost of compliance through loan repayments to a State fund.

### **Avoid Competition With Private Insurance Providers**

Your State may wish to avoid competition with private insurance providers. Certain types of State financial assurance programs could draw clients away from insurers. If few insurers are currently willing to offer UST insurance, your State could provide financial assurance in the short-run. In the long-run, however, this short-term solution may preclude insurers from ever offering coverage in the State, thus perpetuating the problem. States can design assurance programs to minimize competition with insurance, or to allow periodic adjustments to the level and type of coverage to respond to changes in the insurance market.

### **Supplement The Trust Fund**

A State may wish to supplement the Federal Leaking UST Trust Fund in the event it provides inadequate monies to clean up releases from USTs whose owners or operators cannot or will not pay, or if third-party compensation is necessary. The Trust Fund may not be available to pay corrective action costs up to \$1 million (i.e., the Trust Fund may not automatically fund cleanup that is the owner's or operator's responsibility under the financial responsibility requirements), and will never compensate third-parties for damages caused by a petroleum release. By providing funds for cleanup, a State assurance program can ensure prompt response to releases to minimize threats to human health and the environment. An assurance program also can ensure that third parties are compensated for injuries and damages from those releases. As noted above, a trust fund also could be authorized to pay for releases detected in the early phases of the program before owners and operators have obtained financial assurances.

States may choose a combination of these and other goals that may be accomplished through the specific design of a State assurance program. After an assurance program is established to attain a set of goals, States can reassess their financial assurance needs and adjust their programs to meet changing conditions.

### **WHAT EVALUATION CRITERIA ARE IMPORTANT?**

You should develop explicit criteria to evaluate options for solving your problem. The criteria should measure the expected degree of success in meeting goals. Potential criteria could include:

- The effect on the State (e.g., administrative costs);
- The effect on UST owners and operators; and
- The effect on insurance markets.

We will use these criteria to evaluate assurance programs by developing them further in Chapter 3 and applying them to example programs in Chapter 5.

#### **DO YOU NEED A CLEANUP FUND?**

As leak detection requirements take effect, the number of existing releases that are identified is likely to increase dramatically. Because some UST owners and operators may not have adequate financial resources to clean up these releases, they may go unaddressed or be cleaned up improperly. One component of a State assurance program could be a trust fund to pay for corrective action for releases detected early in the program.

#### **WHAT ARE YOUR ALTERNATIVES?**

Finally, you should identify alternatives and evaluate those that most clearly meet your needs. Such alternatives might include a State fund, a State-run insurance program, or a technical assistance program. Develop several alternative solutions and evaluate them using the criteria most important to your State. If you determine that you need to establish a State assurance program, this handbook should help you determine what type of program will best suit your needs and goals.

### 3. DESIGNING A STATE ASSURANCE PROGRAM

States have wide latitude in designing the characteristics of a financial assurance program. The structure of an assurance program may influence significantly the degree of compliance with the UST financial responsibility requirements. Moreover, program structures will impose different financial burdens on owners and operators, create varying incentives to prevent UST leaks, and affect State taxpayers to differing degrees. To highlight these distinctions, this chapter examines the key elements of potential State assurance program components.

#### POTENTIAL ASSURANCE PROGRAM COMPONENTS

State assurance program structures have five main components:

1. Type of assurance;
2. Participation;
3. Covered costs;
4. Financing method; and
5. Duration of the program.

These components and their implications are examined below. In addition, Exhibit 3-1 depicts the key features of four of the components.

##### Type of Assurance - Insurance Or Guarantee?

A State may establish its assurance program as an insurance mechanism, a guarantee mechanism, or a blend of both.

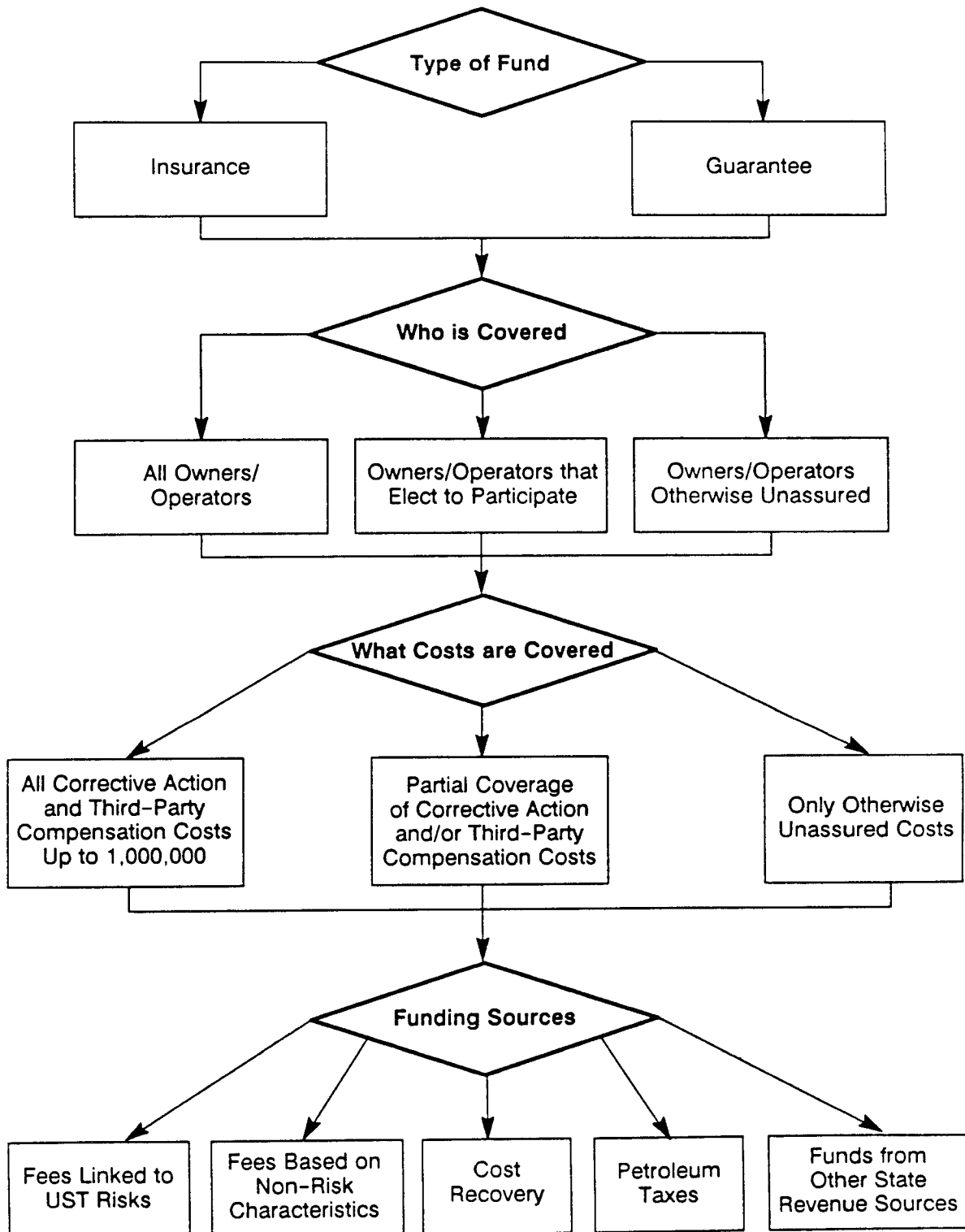
Insurance. If the assurance program acts as an insurer, it would pay for corrective action costs and/or third-party compensation regardless of an owner's or operator's ability to pay. For example, the State would establish a program that paid all corrective action costs above \$100,000. Alternatively, the State could act as a reinsurer to private insurance companies offering UST coverage.

Guarantee. The State could establish an assurance program that pays only if the owner or operator is unwilling or unable to pay (i.e., the fund would act as a guarantor). Under the guarantee approach, the State could have the right to recover costs from owners or operators.

##### Who Participates?

There are three broad approaches to who could participate in a State assurance program. First, the State may require all UST owners and operators in a State to participate in the program. Such a program would relieve the owners and operators of the burden of locating and obtaining other financial assurance mechanisms for the costs covered by the assurance program. Where a program does not cover all costs that are required to be covered under the Federal rules (e.g., third-party compensation), owners or operators would have to obtain additional coverage.

## EXHIBIT 3-1

**Potential Components of State Funds**

Second, the State may allow voluntary participation in the program. Under this approach, owners or operators would have the option of participating in the program or using other mechanisms to comply with the financial responsibility rules.

Finally, under the third approach, only UST owners or operators who are otherwise unassured could join a State program. For example, the State assurance program could cover owners or operators who have obtained coverage for third-party compensation but not for corrective action costs. Or, if an owner or operator could obtain coverage for only the first \$500,000 of costs, for example, the State assurance program could cover the remainder up to \$1 million.

#### **What Costs Are Covered?**

Several potential options are available to States in determining what costs should be covered by a State assurance program. First, in the most encompassing case, a State assurance program would cover all financial responsibility costs required under the Federal regulations (i.e., corrective action and third-party compensation costs). If other mechanisms are not available to many owners and operators in the early years of the UST program, this State assurance program option may be the only way some owners and operators would be able to comply with the financial responsibility requirements.

Second, a State assurance program could provide partial coverage by covering corrective action and/or third-party compensation costs greater than a set amount (e.g., \$100,000) up to some ceiling (e.g., \$1 million). For example, Virginia law provides partial coverage for corrective action and third-party compensation (\$100,000 for corrective action and \$300,000 for third-party compensation). In other States, such as Minnesota, assurance programs cover corrective action costs only.

Third, a State assurance program could cover only otherwise unassured costs. Under this approach, an UST owner or operator would have to obtain financial assurance mechanisms on his own and turn to the State assurance program as a last resort. For example, an UST owner may be able to obtain insurance coverage for up to \$500,000 in corrective action and third-party compensation costs. Then, the State assurance program could provide the remaining amount of required financial responsibility coverage. Combinations and variations of the preceding options also are possible.

#### **How Is The Assurance Program Financed?**

States can choose from four types of funding approaches to pay for State assurance programs:

1. Risk-based fees;
2. Non-risk based UST fees;
3. Petroleum taxes; and
4. General funds.

These options could be combined or used at different times to finance a State assurance program. For example, a fund could be financed using both general revenues and fees assessed on UST owners and operators. Or, a fund could be financed initially through general revenues and later through risk-based fees. In addition to the information presented in this section of the handbook, the Office of Underground Storage Tanks (OUST) at EPA has developed a handbook on methods of financing State UST programs.

You may obtain this handbook, Underground Storage Tank Programs: Funding Options For State And Local Governments, by contacting EPA Regional Offices (see Chapter 7 for addresses and phone numbers).

Under the first approach, UST owners or operators would pay fees or premiums to a State assurance program based on the degree of risk posed by their USTs. Although this method is used primarily for financing insurance programs, it could be used for other State assurance programs as well. A State also could charge participating owners or operators an initial capitalization charge to build up the assurance program's reserves, similar to the capitalization charge necessary to establish a risk retention group. Under this approach, owners or operators responsible for higher risk USTs would pay higher fees.

Under the second approach, non-risk-based factors would be used as the basis for assessing fees on UST owners or operators. Several financing sources tied to USTs could be used:

- Tank registration fees;
- Tank license fees;
- Tank inspection fees; and
- Revenue taxes on firms owning USTs.

Under the third approach, the State assurance program would be financed through taxes on petroleum production, distribution, sales, and use. For example, a State could increase gasoline excise taxes to provide revenues for the State assurance program.

Under the fourth approach, State assurance programs would be financed by general funds not tied to petroleum or an UST owner's or operator's activities. Several financing sources could be used, such as:

- General revenues or appropriations;
- State bond issues; and
- Property taxes.

#### **How Long Should The Program Operate?**

States may be reluctant to undertake an "open-ended" financial assurance program. Therefore, the timeframe for the program and how to scale down its size or phase it out over time are important concerns. Several States have set explicit "sunset" dates by which their State funds will expire. A sunset provision may ensure that the State assurance program provides short-term financial assurance mechanisms, while allowing time for insurance or risk retention groups to become established. A formal study of the program's effectiveness and the status of the insurance market prior to the sunset date also can provide the basis for decisions on whether and how to continue the program.

States can establish a process to scale down or phase-out financial assurance programs over time as other mechanisms become available. The amount of financial assurance coverage could decrease, for example, over a five-to-ten-year period (e.g., by increasing the deductible from \$100,000 in year 1 to \$500,000 in year 10), or end completely. State environmental and insurance officials could survey the availability of UST insurance in the State to determine the phase-out rate of the State UST assurance

program. By establishing sunset dates and phase-outs, States may be able to minimize their involvement in the UST insurance market.

### **WHAT STRUCTURE SHOULD YOU CHOOSE?**

Chapter 2 of the handbook identified three criteria you could use to evaluate components of State assurance programs:

1. Effect on States;
2. Effect on UST owners and operators; and
3. Effect on insurance markets.

Using these three criteria, this section discusses some of the advantages and disadvantages of the various assurance program components listed above. The particular program structure you choose depends on your State's goals and needs and will be affected by technical and political considerations.

#### **Effect On States**

A major concern is likely to be the potential cost to the State of an assurance program and the ease of administering the program. In general, a guarantee program that covers only costs the owner or operator cannot pay is likely to be less expensive to the State and simpler to administer than a State-run assurance program that covers all costs regardless of the owner's or operator's ability to pay. The cost to the State also will depend on the type of financing mechanism selected. Programs financed primarily by owners and operators, such as tank or petroleum fees, will cost less to the State than programs financed by general revenues or bonds.

A State may want to consider non-monetary impacts as well. For example, the rate of cleanup, the efficiency of a given cleanup effort, and the level of the State's technical involvement in the cleanup may vary depending on the type of program adopted. Similarly, the cost recovery efforts required under a guarantee program (or a cleanup fund) may have a different effect on the State politically and economically than would an insurance program, where losses are factored into the program and cost recovery actions against owners or operators generally are avoided. Finally, a program covering third-party claims involves the State heavily in claims adjustment activities and litigation.

#### **Effect On UST Owners And Operators**

UST owners and operators care about the cost of complying with Federal and State UST financial responsibility requirements. Moreover, because insurance and other financial assurance mechanisms currently are not generally available, most owners and operators may have difficulty complying with the requirements.

The more UST owners and operators share in the costs of the assurance program, the greater the incentive they will have to control the risks from their tanks (i.e., they will have a financial incentive to reduce UST releases). Thus, guarantee programs, cost-recovery requirements, and programs that require payments from tank owners (e.g., premiums paid to State-run insurance programs) are likely to be incentives for proper tank management.



Finally, some financing approaches may be perceived as fairer than others. For instance, if you believe that cleanups of releases from USTs should be paid solely by owners or operators, you may favor financing the State assurance program through fees levied only on UST owners and operators (e.g., tank fees). Equity arguments also may occur between groups of UST owners and operators. For example, in a State that was considering imposing a fee on the volume of petroleum handled by distributors, large petroleum marketers opposed the fee because many of them could self-insure using a financial test rather than relying on the State fund. Conversely, smaller marketers and dealers favored the fee because the burden of financing the State fund would be spread across a large group.

#### **Effect On Insurance Markets**

The particular design of an assurance program also may affect the current and future availability of UST insurance. If a State assurance program acts as an insurer, either UST owners or operators could be required to participate or the State could offer insurance at attractive prices. In such a case, competition with private insurers could be high. Alternatively, if an assurance program acts as a guarantor or only covers otherwise unassured costs, competition with insurers may be low. In cases where States establish limited coverage funds (e.g., only corrective action costs above \$100,000 are paid by the State), insurers may choose to write policies for complementary coverage (e.g., amounts up to \$100,000). From the private insurer's point of view, such State programs may increase the predictability of expected losses and reduce capitalization costs. As a result, limited coverage funds may provide an incentive for insurers to enter the market.

Because the insurance market will change over time, the State financial assurance program could be set up to respond with flexibility to such changes. For example, the State could begin with a limited coverage fund (i.e., providing coverage for costs greater than \$100,000). Then, at regular intervals (e.g., every two years), the State could reassess the insurance market and decrease coverage amounts (e.g., from costs above \$100,000 to costs above \$500,000) in response to increasing availability of insurance.

#### **4. FUNDING AND ADMINISTRATION**

EPA and the States have little experience to rely on in estimating the appropriate size for a financial assurance program. Deciding on the right program size depends on several factors, such as the State's political climate, its economic strength, the characteristics of its UST population, and its environmental setting. By carefully defining how an assurance program will operate, however, even a small program can be successful. This chapter does not recommend a particular financing approach or specific operating procedures, but instead encourages States to adopt an approach that matches their own needs.

##### **HOW MUCH MONEY SHOULD YOU COMMIT TO AN ASSURANCE PROGRAM?**

The stock of money in a fund or assurance program will be dynamic, increasing with new revenues and decreasing with payments. For ongoing programs, the initial level of funding may not be as important as whether a given disbursement rate can be maintained. In other words, if the program is to receive monies and to function over a longer term, the program should take in at least as much as it pays out. The level of funding necessary for a particular program will depend on many factors, such as the type of coverage, claims administration, financing provisions, effects of the UST technical standards, and whether administrative expenses are paid from the fund or from a separate administrative appropriation.

At a minimum, however, the initial level of the fund or assurance program should be at least \$2 million. State insurance commissioners may provide assistance or information to establish the minimum amount of funds to commit to the program. Some States, for example, require that insurers establish reserves equal to at least five times the amount of coverage provided under each policy. Thus, to write policies with \$1 million policy limits, the insurance company would have to maintain a \$5 million reserve. Other States use higher ratios in situations where risks and expected losses are significant. A reserve guards against the unexpected depletion of the fund or assurance program. A reserve may be especially desirable in the first years of the program, until the State gains sufficient experience in administering it.

Although a State is unlikely to fund a financial assurance program in excess of its needs, the fund may contain more money than can be disbursed effectively in any one year. For example, in a given year, a fund might contain \$50 million, but only be able to effectively process and pay out \$15 million in claims. If the fund is to be financed through a continuous tax (and will therefore replenish itself by the next year), there may be little reason to maintain a \$35 million reserve. Therefore, the rate of claims processing, as well as the rate of claims applications, should be considered when setting the funding level for the program.

The initial monies in the fund may be supplied by an appropriation, or the fund may contain no money pending receipt of certain dedicated revenues, such as petroleum taxes or tank fees. Floor and ceiling "triggers" may keep the level of the fund and the associated financial burden in appropriate ranges. A floor trigger is a provision that activates a financing mechanism when the level of the fund decreases to a certain amount (the "floor"). A ceiling trigger is a provision that de-activates a financing mechanism when the level of the fund increases to a certain amount. For example, a tax on the sale of gasoline might be triggered when the State fund or assurance program diminishes to a floor of \$2 million (with the proceeds dedicated to the fund) and remain in effect until the level of the fund increases to a ceiling of \$10 million.

As additional money is disbursed, however, the fund would again begin to diminish until it reached the floor value, at which point the tax would again be triggered and the cycle repeated.

## **CLAIMS ON THE PROGRAM**

Claims rates are difficult to predict, especially in the near term. Claims are requests for payments from the assurance fund to pay for corrective action costs and/or third-party compensation. Claims rates will be affected by several factors, including the number and ages of tanks in the State, local hydrogeology, the effects of the UST technical standards, and the types of claims covered by the fund. Generally, however, claims rates during the first five years of the program are likely to be relatively high as the technical standards are phased in because new leak detection and monitoring requirements will detect most of the tanks that are currently leaking. You should draw upon resources in your State for expertise on administering claims programs. State insurance officials, private insurance companies, and other State insurance programs (e.g., workmen's compensation funds) may be able to provide advice on establishing an efficient claims process.

Procedural and administrative guidelines may help to control the flow of money from the fund. The State should define clearly what constitutes an acceptable claim and what costs the assurance program will cover. If the level of the fund becomes inadequate, a mechanism should exist to halt the claims process. This might include a priority system (e.g., first come, first serve) to pay specific claims and to make clear which claims will not be paid. A "first come, first serve" claims system also could be combined with a reserve in order to respond to imminent hazards if they arise and the primary fund cannot cover the costs. The assurance program also should specify the time period during which reported leaks and claims will be covered.

States also may limit claims on the fund by setting both aggregate limits and per occurrence limits. An aggregate limit means a limit to all of the costs incurred within a given year by one owner or operator as a result of releases from all of the owner's or operator's USTs covered by a single financial assurance mechanism. For firms with three USTs, for example, an aggregate limit would apply to the costs of all releases from the three tanks in one year. A per occurrence limit, in contrast, is a limit on the costs incurred from a single release from an underground storage tank.

The Federal financial responsibility regulations for USTs set aggregate requirements based on the number of USTs owned or operated. Similarly, a State assurance program could set different aggregate levels based on the number of USTs. For instance, a State fund that covered corrective action costs up to \$1 million per occurrence could cover aggregate costs up to \$2 million.

Finally, to ensure the timely availability of funds, the State assurance program should provide "first dollar coverage." First dollar coverage means the program would pay for costs first, or should be able to pay for costs where the owner or operator is unable or unwilling to pay. Depending on the terms of the program, the State could then seek reimbursement from the owner or operator.

## **COSTS OF ADMINISTERING AN ASSURANCE PROGRAM**

States must consider who will run the assurance program and what powers they will have. An assurance program can be administered by a State environmental agency or an insurance commission, an independent board, or a private administrator under contract with the State.

Administrative costs of a State assurance program cover a variety of activities, including: maintaining a list of participants, setting premium rates, making eligibility determinations, and processing claims. Program design will affect administrative costs and complexity. In addition to some fixed administrative costs, such as maintaining a list of participants, costs will increase with the amount of individual processing required for each participant or for each claim. Also, for some programs, there may be costs for determining the underwriting criteria (i.e., determining the key risk factors in setting premium rates). In other programs, there may be legal and other costs involved in pursuing cost recovery actions against owners and operators. Further administrative costs are incurred for programs which monitor or direct the cleanup activities.

Some administrative costs may be reduced by simplifying and standardizing the terms of the program. For example, a program assuring all UST corrective action costs after the first \$100,000 would be simpler, more predictable, and less costly to administer than a program assuring costs that are not covered by any other source (which may require individual determinations of eligibility). However, even if the State assures costs above \$100,000, additional eligibility criteria still may require individual processing of applicants.

Many States will consider a State assurance program as part of a comprehensive UST regulatory program. This may reduce the administrative burden of managing the fund or assurance program because there will be a number of activities and information needs that can be shared by different program components. For example, under notification requirements, a State may maintain a database of UST owners, operators, and tanks. A State agency may use the data for compliance monitoring and enforcement, leak investigation and cleanup, as well as identifying participants in a State assurance program. Program activities such as leak investigation and cleanup also may be structured to accommodate the administrative needs of a State financial assurance program.

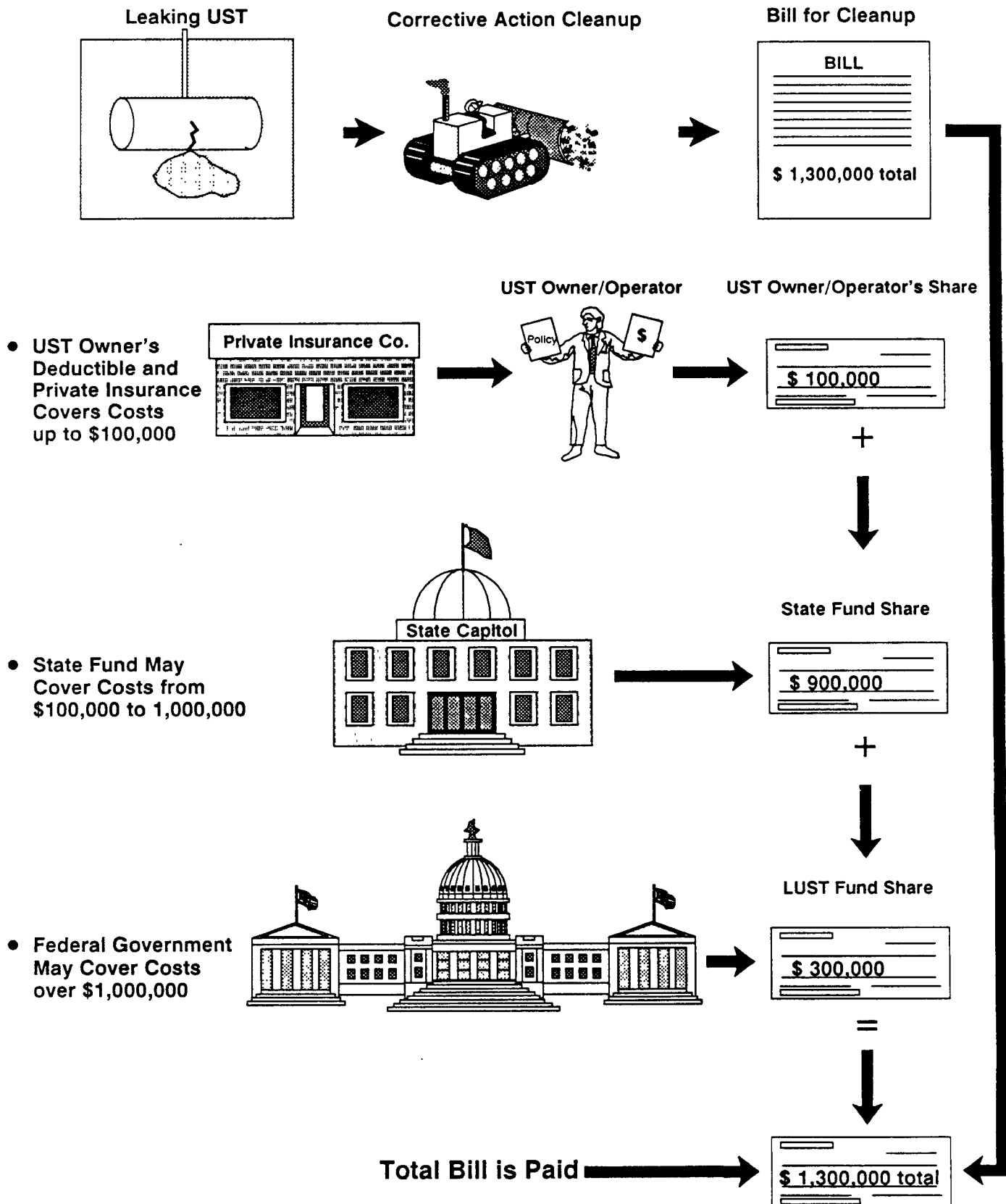
## **NOTIFYING PARTICIPATING OWNERS AND OPERATORS**

The State should inform owners and operators about the State assurance program and about any remaining responsibilities and conditions that they may have. UST owners and operators need to know about eligibility requirements they must fulfill in order to obtain coverage or comply with the UST financial responsibility requirements. For example, a condition of the fund may be that the owner or operator must obtain financial assurance coverage up to \$100,000 in order to be eligible to receive State money for any costs above \$100,000.

Under the Federal UST financial responsibility requirements, if the State fund or assurance program becomes inoperative or insolvent, the State must notify participating owners and operators within 60 days. UST owners and operators then must obtain other coverage as necessary in order to remain in compliance with financial assurance requirements.

Exhibit 4-1 depicts an example of how a State assurance program that covers corrective action costs from \$100,000 to \$1 million (e.g., an insurance fund rather than a guarantee fund) would pay for corrective action.

## EXHIBIT 4-1

**Paying for Corrective Action***(assuming cleanup qualifies for State and Federal funds)*

## **5. EXAMPLES OF STATE ASSURANCE PROGRAMS**

There are many possible variations in the way financial assurance program components can be combined. This chapter presents three examples that either reflect existing State assurance programs or illustrate the ways in which program components may be combined. The three examples are:

1. Guarantee fund;
2. Insurance program; and
3. Cleanup fund.

These programs are evaluated below using the three criteria discussed in Chapter 3. Exhibit 5-1 summarizes the key provisions of the three programs.

### **GUARANTEE FUND**

The guarantee fund is designed to minimize the involvement of the State in providing financial responsibility. The other key objective of the fund is to assure that all costs and all UST owners and operators are covered either under private assurance mechanisms or by the fund. Under the guarantee fund:

- Only unassured or partially covered owners and operators participate;
- Only unassured corrective action and third-party liability costs are covered;
- The fund acts as a guarantor; and
- The fund is financed by general revenues and cost recovery.

Under this approach, owners and operators would be required to obtain the maximum amount of required coverage available. If owners and operators were unable to obtain the full amount of coverage, the fund would cover the difference. Thus, the fund would cover only the amount above the coverage obtained by the owner or operator, up to the required amount of coverage. If, for example, an UST owner or operator could only obtain insurance coverage for \$300,000 of corrective action costs, the guarantee fund could provide the remaining \$700,000, up to \$1 million. Then, if the owner had an UST leak that cost \$500,000 to clean up, the owner's insurance would cover the first \$300,000. The State guarantee fund would pay the remaining \$200,000 and subsequently attempt to recover that amount from the UST owner or operator.

#### **Effect On States**

Losses from the guarantee fund would occur where the State is unable to recover costs from UST owners or operators. States are likely to experience significant administrative costs implementing the cost-recovery provisions of the minimum coverage fund. For example, a State would frequently have to initiate cost-recovery proceedings and determine how much an owner or operator is able to pay. In addition, the State may have mixed success in recovering costs from certain firms, such as small businesses or firms with multiple subsidiaries. Finally, administrative costs for determining eligibility could be high because case-by-case efforts must be made to determine that coverage is otherwise unavailable.

## EXHIBIT 5-1

**Key Provisions of the Three Examples**

<b>Assurance Program</b>	<b>Type of Assurance</b>	<b>Who Participates?</b>	<b>What Costs are Covered?</b>	<b>How is the Program Financed?</b>
<b>1. Guarantee</b>	<b>Guarantee</b>	<b>Only unassured owners and operators</b>	<b>Only unassured costs</b>	<b>General revenues and cost recovery</b>
<b>2. Insurance Program</b>	<b>Insurance</b>	<b>Voluntary participation</b>	<b>Variable</b>	<b>Risk-based premiums</b>
<b>3. Cleanup Fund</b>	<b>None</b>	<b>Universal participation</b>	<b>Corrective action costs</b>	<b>General revenues and cost recovery</b>



### **Effect On Owners and Operators**

Because the fund acts only as a guarantor, this approach provides owners and operators incentives to prevent UST leaks (e.g., they must pay all costs of cleanup). Owners and operators would also have to work harder to find other financial assurance mechanisms than under other assurance programs because the State would require that they have attempted to obtain other mechanisms before turning to the State fund. Also, the fund would provide no protection to owners and operators from catastrophic loss. The owner or operator remains obligated to pay the costs of cleanup or third-party claims and risks major losses in the event of a sizable leak.

### **Effect On Insurance Markets**

Finally, competition with insurance would be low under the guarantee fund because only unassured costs would be covered (i.e., owners and operators would have to attempt to obtain insurance before using the fund). If States do not pursue cost recovery, however, owners and operators will have little incentive to seek private insurance. Finally, the guarantee fund provides few incentives for insurers to enter the market because it does not reduce the insurer's uncertainty about expected losses.

## **INSURANCE PROGRAM**

In its purest form, a State insurance program is modeled closely after a private liability carrier. The insurance program is similar to an insurance plan. Under the insurance program:

- Participation is voluntary;
- Deductible amounts may vary based on premiums;
- Fund acts as an insurer; and
- Financing comes from risk-based premiums.
- Covers corrective action and third-party liability costs.

A State insurance program is a mechanism for providing insurance coverage for tank owners when commercial pollution liability insurance for underground storage tanks is not readily available or affordable. Unlike most other UST assurance programs, however, an insurance program pays tank-related corrective action and third-party liability claims without recourse against the insured tank owner and is typically funded by risk-based premiums. States sponsoring insurance funds must engage in a full range of insurance-related activities from risk assessment to claims handling, much like a private insurer.

State-sponsored insurance funds are not a new concept. Many States have established State workers' compensation programs. Some States have other types of State-sponsored insurance programs, such as patient compensation funds and public school insurance programs. States contemplating State-sponsored insurance programs for UST systems should consider the purposes the program might serve, as well as the practical aspects of setting up an insurance program.

A State insurance program may be administered by a quasi-independent entity and run by State employees or a private company under contract to the State. The program is self-supporting and driven by its contractual obligations to its policyholders, the tank owners and operators participating in the program. Premiums are based on the degree of risk which each tank or site represents. The total premiums each year should cover

the claims the program is obligated to pay as well as the program's administrative expenses. States could structure the program to cover primarily high-risk owners and operators who are not insurable by private insurers. Alternatively, the State could rely on a private insurer to provide coverage and act as a reinsurer to the insurance company for excess coverage. If a private company runs the program, it is important to consider whether there are any constitutional problems with the delegation of authority to a nongovernmental entity.

### **Effect On States**

The administrative complexity and cost of the insurance program could be significant. The costs depend on the degree of subsidy by the State in setting premiums.

Running an insurance program will require more specialized skills than administering a trust fund. One approach is to have the governor appoint a board to oversee the program and make all executive and policy decisions. A representative of the insurance department and the implementing agency for the State's UST program could be ex officio members of the board. The board could then have the authority to contract with a private administrator who would run the program's day to day operation.

The legislation creating the board should give it enough authority to carry out all the functions necessary for the program to succeed. This includes the authority to invest the program's income, contract with administrators, lawyers and others as necessary, pursue subrogation claims against responsible parties, obtain reinsurance, and issue and cancel insurance policies. A positive effect on the State is that an insurance program could result in less expensive, and more timely cleanup efforts than a guarantee program, which might not act until a determination is made that the owner or operator does not have other financial assurance and is unable to pay.

### **Effect On Owners and Operators**

The program allows UST owners and operators to pick their own financial assurance mechanism, rather than being forced to accept a State assurance program. Where States impose conditions on coverage, such as inventory control or tank upgrading, owners and operators will have an incentive to manage their USTs properly. Risk-based premiums will also provide risk management incentives.

If participation is voluntary, private insurers are likely to provide insurance first to low risk tank owners, leaving the State program with higher per tank risks shared by fewer participants. Because administrative costs would be shared by fewer insureds, the average cost of premiums would rise. In addition, an insurance program provides the greatest protection to the owner or operator. Unlike the guarantee program, insurance transfers risk and protects the owner or operator from the catastrophic financial loss he would suffer if faced with an uninsured leaking tank.

### **Effect On Insurance Markets**

The structure of the program would determine the degree to which it competes with insurance. State insurance programs with low premiums or extensive coverage limits would provide greater competition with insurers than State programs with high premiums or limited coverage. If the State prefers to lessen the competition, it could establish an insurance program with fees that are always at least ten percent greater

than comparable insurance premiums. Alternatively, an insurance program could compete directly with private insurers if program fees were no more expensive than insurance premiums.

## **CLEANUP FUND**

The cleanup fund, as distinct from a guarantee fund, is designed to clean up petroleum releases from underground storage tanks, not to provide a financial assurance mechanism to UST owners and operators. The cleanup fund would protect human health and the environment by ensuring that UST releases are addressed quickly and completely. Under the cleanup fund:

- All UST owners and operators participate;
- Only corrective action costs are covered;
- The fund is not a financial assurance mechanism; and
- The fund is financed by general revenues and cost recovery.

It is likely that during the early years of the UST program, as leak detection requirements are phased in, there will be a significant increase in the number of identified UST releases. Many owners and operators will not be able to pay for the costs of these releases, since they do not currently have financial assurance to cover the costs.

The cleanup fund would provide a source of money to respond to petroleum releases, including releases for which no responsible party could be found to pay for corrective action. Corrective action costs paid by the cleanup fund could be recovered, where possible, from responsible UST owners or operators. Because the cleanup fund is not intended to be a financial assurance mechanism, UST owners and operators would have to demonstrate financial responsibility using other mechanisms, such as insurance. It could, in fact, be set up to meet short-term needs in the first three to five years of the program.

### **Effect on States**

A cleanup fund could ensure quick response to any releases detected in the early years of the program before all owners and operators have obtained financial assurances. Therefore, it can provide a direct human health and environmental benefit. Several States currently have cleanup funds that are not intended to be financial assurance mechanisms. Cleanup funds may cost less to States than most other assurance programs because costs may be recovered from individual UST owners and operators responsible for releases. A greater share of the fund's costs will be borne by the State if the fund is financed primarily through general revenues rather than cost recovery, tank fees, or petroleum taxes.

### **Effect on Owners and Operators**

Initially, many owners and operators will be faced with corrective action responsibilities without any financial assurance mechanisms to cover the costs. In addition, in order to obtain assurance mechanisms, owners and operators will have to clean up any existing releases (pre-existing conditions, as termed in insurance policies) as well as install tank monitoring and upgrading to meet pre-conditions for many types of financial assurances. A cleanup fund could be used to address tanks that are currently leaking. The cleanup fund could assist owners and operators in complying

with the technical corrective action and financial responsibility requirements of the UST regulatory program.

The cleanup fund could not be used by UST owners and operators to demonstrate financial responsibility. As a result, owners and operators would have to obtain other mechanisms, such as insurance, or demonstrate that they could self-insure (i.e., by passing a financial test). A State might consider using a cleanup fund and an insurance or guarantee program in combination, the first to address existing problems and the second to ensure that future problems are addressed. Without a cleanup fund, some owners and operators may be unable to clean up releases until they become critical risk situations.

#### **Effect on Insurance Markets**

Owners and operators would have an incentive to obtain insurance or other financial assurance mechanisms, as a good business practice, to cover potential losses. A cleanup fund might foster the insurance market by making an owner's or operator's tank more insurable if existing contamination is addressed. A State cleanup fund would not compete with insurers because owners and operators would be required to pay all corrective action costs incurred by the fund. Neither would the fund foster UST insurance markets in a particular State, except to the extent that concerns about cost recovery under a cleanup fund encourages a greater number of UST owners or operators to demand insurance than would do so in the absence of a cleanup fund.

The three preceding approaches to State financial assurance programs are only examples. Other approaches are possible and may be better suited to your needs. Moreover, there are criteria that could be used to evaluate potential assurance programs, such as equity among owners and operators, that were not used here. Each State should select its own key criteria and program components to evaluate.

## **6. UST LOAN AND GRANT FUNDS**

This chapter discusses UST loan or grant funds used to assist owners or operators to upgrade or replace USTs. These funds are not financial assurance programs, like the programs discussed in earlier chapters of the handbook. However, they are included in this handbook because States may wish to establish such funds to offset problems owners and operators may have in securing financial responsibility and in complying with UST technical requirements.

### **USES FOR LOAN AND GRANT FUNDS**

Financial assurance providers (e.g., insurers and risk retention groups) may not be willing to offer coverage to UST owners and operators who have not upgraded or replaced old or deficient USTs. In the current UST insurance market, for example, some insurers require, as a precondition for obtaining coverage, that USTs be in compliance with Federal and State technical requirements, such as leak detection and monitoring. In addition, some assurance providers will not provide coverage for USTs older than 15 to 20 years or require payment of surcharges for policies covering bare steel USTs. Or, even where such coverage is available, it may be expensive and unaffordable for smaller UST owners and operators.

Some UST owners or operators may not be able to afford to pay the costs of such improvements. They may be unable to obtain loans from conventional lending sources as well. To solve this problem, a State may choose to establish an UST technical compliance fund to make direct loans, guaranteed loans, or grants to UST owners and operators to upgrade or replace their tanks. Thus, the underlying purpose of a loan or grant fund is to assist UST owners and operators to implement applicable UST technical standards. As a result, the risk of petroleum leaks from USTs will be reduced. In addition, by complying with the technical standards, UST owners and operators may find it easier to obtain UST financial assurance mechanisms.

### **UST LOAN OR GRANT FUND COMPONENTS**

UST loan or grant programs are not widely used by States now, although several States have developed loan programs recently. The terms and financing sources for these programs are listed in Exhibit 6-1. This list illustrates example loan programs. It is based on a review of selected State environmental laws in the BNA Environment Reporter, as of September 1988. The list is not intended to be a current or comprehensive listing of such programs.

Those States wishing to start an UST technical compliance fund could establish several program components:

- Eligibility criteria;
- Type of program (e.g., direct or guaranteed loans); and
- Length of program.

These program components are discussed below.

# EXHIBIT 6-1

## STATE LOAN OR GRANT FUNDS

(as of September 1988)

State/Fund Title	Eligibility	Revenue Source	Interest Rate	Term of Loan	Expiration Date
California California Petroleum Underground Storage Tank Financing Authority [PROPOSED]	Small businesses unable to obtain loans from private lending sources. The amount of a loan may not exceed \$70,000. Loans may be used to upgrade or replace USTs.	1. State appropriations 2. Application fees - 3. Interest on outstanding loans 4. Federal appropriations 5. Interest income from the fund	Equal to the cost of money to the State on the first day of the calendar quarter during which the loan is approved.	Not to exceed ten years.	January 1, 1992
Iowa Petroleum Underground Storage Tank Financing Account [PROPOSED]	Provide loans to financially qualified small businesses to repair, upgrade, or replace UST to meet applicable State or Federal standards. The maximum amount of a loan may not exceed \$50,000.	1. Petroleum tank fees 2. Interest received on outstanding loans 3. State and Federal grants	Equal to the cost of borrowing money by the State on the first day of the calendar quarter during which the loan is approved.	The shortest feasible term commensurate with the repayment ability of the borrower.	July 1, 1998
Maine Underground Storage Facility Replacement Fund	Money in the fund may be used for direct loans for all or part of underground oil storage facility replacement projects according to criteria set by the State. Also provides funds, at the discretion of the State, for insuring mortgage payments for UST loans. The mortgage insurance is limited to an aggregate total of \$5 million.	1. State appropriations 2. Interest income on the fund 3. Repayments	To be determined.	To be determined.	To be determined.
New Jersey State Underground Storage Tank Improvement Fund	Revolving fund; low interest loans made to UST owners who have been directed by the NJDEP to repair or replace one or more of their USTs or install monitoring systems; loans issued based on economic hardship.	1. State appropriation of \$5 million 2. Repayment of loans	Not more than six percent; fixed rates.	Not to exceed ten years.	December 31, 1991
New York State Underground Petroleum Storage Facility Improvement Fund [PROPOSED]	Loans made to owners of facilities who are required pursuant to law or regulation to replace one or more underground storage tank facilities.	1. State appropriation of \$5 million. 2. Interest from outstanding loans	An annual rate equal to the Federal discount rate.	Not less than five years nor more than ten.	December 31 of the fifth full calendar year subsequent to the effective date of the Act.

# EXHIBIT 6-1 (concluded)

## STATE LOAN OR GRANT FUNDS

(as of September 1988)

State/Fund Title	Eligibility	Revenue Source	Interest Rate	Term of Loan	Expiration Date
Rhode Island Underground Storage Tank Replacement Revolving Loan Fund	Low interest loans to residential and commercial owners of USTs to remedy leaking tanks and replace tanks that are likely to leak; revolving fund.	1. State appropriations 2. Repayment of loans 3. Federal grants 4. Gifts, bequests, donations 5. Bond issues	Two points below the six-month Treasury Bill rate at the time the loan is awarded; fixed rates.	Depends on the income of the recipient and whether it is a commercial facility; ranges from five to fifteen years maximum.	No expiration date.
South Dakota Loan Program	Available to petroleum marketers to improve environmental safety of USTs; predominantly capital investment in equipment.	State revenue bond	No specific terms specified although rate would be lower than would otherwise be available.	No terms specified.	No expiration date.
Vermont Underground Storage Tank Incentive Program	Grants up to \$5,000 for small retail gasoline outlets (sales <20,000 gallons/month) and municipalities (pop. <2,500) to aid in their compliance with State regulations for replacing USTs.	Funds authorized by the oil overcharge fund and from the petroleum cleanup fund for this purpose.	N/A	N/A	No expiration date.
Petroleum Cleanup Fund	Up to one-half of fund can be used to provide no interest loans (up to \$40,000) to small rural dealers and small municipalities for tank replacement.	1. License fees 2. Interest income from fund 3. Reimbursement and cost recovery	0%	10 years	No expiration date.

### **Eligibility Criteria**

The loan or grant fund could be designed to provide funds only to those UST owners and operators who are otherwise unable to obtain money to upgrade or replace their tanks. Criteria to determine eligibility could include the following:

- The firm is a small business and meets other class definitions;
- The applicant is creditworthy, based on data from reliable sources such as financial records and the applicant's credit rating;
- The funds will be used solely for upgrading or replacing USTs; and
- Funds to upgrade or replace USTs are unavailable from any other source, including the applicant's own resources and resources from affiliated companies.

### **Direct Loan Programs**

Where a State makes direct loans, the maximum loan amount, the interest rate, and repayment period must be established. For example, proposed legislation to establish an UST loan program in California would set a maximum loan amount of \$70,000, with the interest rate at the cost of money to the State and the term of the loan up to ten years.

In addition, the State should establish the optimum annual flow of UST loan funds, to ensure liquidity, by setting a total annual limit on the amount of loans disbursed from the fund and determining an estimated default rate on loans. For example, default rates of 1 to 3 percent are typical of loans made by private lenders. Finally, to administer a direct loan program, a State must establish an administrative structure with adequate staff and expertise.

### **Guaranteed Loan Programs**

The State may guarantee UST loans made by private lenders. Because private lenders review loan applicants and administer loan payments, loan guarantees reduce the administrative burden to the State of managing loan accounts. Moreover, guaranteed loan programs are advantageous in that private lenders provide close oversight of the uses for funds. Private lenders may require, for example, that UST owners and operators obtain estimates or other documentation for project costs prior to making loans. Such oversight may ensure that loans are used only for authorized purposes (i.e., to upgrade or replace USTs). On the other hand, since private lenders share loan risks with States, they may not make loans to high-risk UST owners and operators. As a result, guaranteed loan programs may not assist some of the marginal UST owners or operators who are the intended beneficiaries of the programs.

As with direct loan programs, States with UST loan guarantee programs must provide staff to oversee fund disbursements, establish a total annual limit on loan disbursements, and estimate default rates. And, to ensure that private lenders make responsible loans, the State may not want to guarantee more than 80 percent of each UST loan. In case of default, private lenders would incur a loss of 20 percent of the loan amount. Thus, private lenders would have an incentive to ensure that UST owners and operators have the ability to repay loans.



### **Grant Programs**

A State may make direct grants to UST owners or operators to pay for upgrading or replacing USTs to meet technical standards or insurance preconditions. For example, the State of Vermont has established an Underground Storage Tank Incentive Program, under which small municipalities or owners of small retail gasoline outlets may apply for grants of up to \$5,000.

Grant programs must set limits on the individual and total annual amount of grants disbursed. In addition, States may wish to target grants to high-priority USTs, such as those owned by small businesses or over 20 years old. Finally, States must establish procedures to review grant applications and mechanisms to ensure that grant funds are used for their intended purposes.

### **Length of Program**

For UST owners and operators, the most important time to have a loan program available is in the early, phase-in period of Federal and State UST program requirements (e.g., the first ten years after the technical standards are effective). In time, UST owners and operators must upgrade or replace old USTs in order to comply with such requirements. Thus, most of the technical preconditions established by financial assurance providers will have been met, in most cases, by UST owners and operators.

As a result, States could stop making new loans or grants to owners and operators after the date on which all UST owners and operators must comply with these technical design and operating standards. Alternatively, if States found that certain owners and operators continued to need financial assistance to upgrade or replace tanks, UST loan or grant programs could be continued, but with lower total disbursements.

**SECTION II**  
**INFORMATION SOURCES**

## **7. INFORMATION SOURCES**

### **WHERE CAN YOU GET MORE INFORMATION?**

Current information on State UST programs may be obtained directly from States (see Appendix C for a list of State contacts). In addition, you may obtain information on Federal UST requirements by contacting the EPA Hotline at 800-424-9346 or contacting one of the Regional UST Program Managers listed in Exhibit 7-1.

### **STATE UST FINANCIAL RESPONSIBILITY LAWS**

Several States have already initiated activities to address financial responsibility, including:

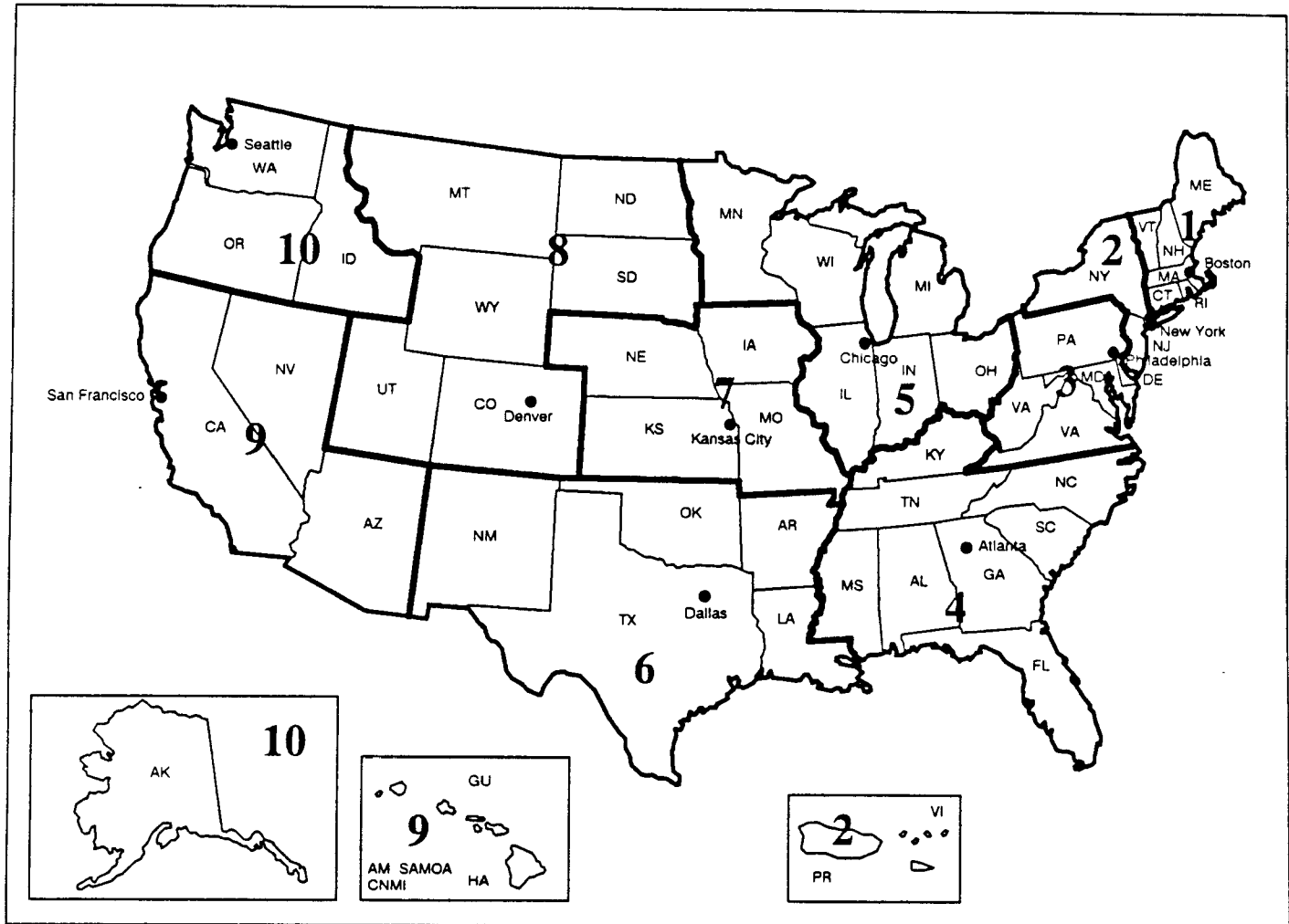
- Authorizing State agencies to promulgate UST financial responsibility regulations;
- Establishing explicit financial responsibility requirements in State law; and
- Establishing UST corrective action and third-party compensation programs.

These statutes, regulations, and programs may be useful models for States seeking to establish UST financial responsibility programs. In addition, several States are currently considering enactment or promulgation of UST financial responsibility requirements.

The description of several State UST financial responsibility requirements below illustrates the range of approaches a State may take in establishing State funds and in mandating financial responsibility. The list, found in Exhibit 7-2, is only a sample of State statutes and proposed laws and is not a current or comprehensive list of all State UST programs. It is based on a review of selected State environmental statutes, compiled in the BNA Environment Reporter in September 1988, and proposed State financial responsibility legislation. You may wish to contact State officials for details on particular laws (see Appendix C for addresses).

## EXHIBIT 7-1

## EPA Regional UST Program Managers



William Torrey  
U.S. EPA, Region I  
Kennedy Bldg., Room 2203  
Mail Code: HPU-CAN2  
Boston, MA 02203  
617-573-9604

Thomas Taccone  
U.S. EPA, Region II  
Mail Code: 2AWM-HWP8  
26 Federal Plaza, Rm. 906  
New York, NY 10278  
212-264-1369

Wayne Naylor  
U.S. EPA, Region III  
841 Chestnut Street  
Mail Code: 3-HW-31  
Philadelphia, PA 19107  
215-597-7354

Mike Williams  
U.S. EPA, Region IV  
345 Courtland St., N.E.  
Atlanta, GA 30365  
404-387-3866

Gerald Phillips  
U.S. EPA, Region V  
230 South Dearborn St.  
Mail Code: SHS-JCK-13  
Chicago, IL 60604  
312-886-6159

William Rhea  
U.S. EPA, Region VI  
1445 Ross Avenue  
Mail Code: 6H-A  
Dallas, TX 75202-2733  
214-655-6755

Chet McLaughlin  
U.S. EPA, Region VII  
726 Minnesota Avenue  
Kansas City, KS 66101  
913-236-2852

Debbie Ehler  
U.S. EPA, Region VIII  
999 18th St., Suite 500  
Mail Code: 8-HWM-WM  
Denver, CO 80202-2405  
303-293-1489

Eric Yunker  
U.S. EPA, Region IX  
215 Fremont Street  
Mail Code: T-3-I  
San Francisco, CA 94105  
415-974-8071

Joan Cabreza  
U.S. EPA, Region X  
1200 6th Avenue  
Mail Code: HW-112  
Seattle, WA 98101  
206-442-0344

## EXHIBIT 7-2

### STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
Alabama Groundwater Protection Trust Fund	Establishes a \$10 million fund to provide for the cleanup of LUSTs during a two-year grace period, after which the State will set financial responsibility requirements with an owner/operator responsible for a maximum of \$100,000 for corrective action (CA) and \$300,000 for third-party compensation coverage (with a \$500,000 per occurrence limit). Also provides for an insurance pool for those unable to secure cleanup and/or liability insurance.	1. Motor fuels fee	Yes During the two-year grace period, all CA costs are covered; subsequently, costs will be covered according to the yet-to-be established financial responsibility requirements.	Yes Covers all third party claims over \$300,000 with a per occurrence limit of \$500,000.
California State Underground Tank Insurance Fund [PROPOSED]	Establishes a board of directors that will determine the eligibility requirements and the amounts of coverage for CA and third-party liability. Authorizes the board to act as a reinsurer as well.	1. State appropriations 2. Premiums 3. Interest income on the fund 4. Cost recovery 5. Revenue bonds	Yes To be determined.	Yes To be determined.
Storage Tank Cleanup Fund [PROPOSED]	Owners and operators must file claims for reimbursement of covered costs from the fund.	1. Fees 2. Interest income on the fund 3. State appropriations 4. Cost recovery	Yes Covers costs of CA from \$100,000 to \$1 million per occurrence.	No
Colorado Underground Storage Tank Fund [PROPOSED]	The bill would allow the State insurance commissioner to establish a program to assist owners and operators in complying with the financial responsibility requirements.	1. Registration fees 2. Civil penalties 3. Certification fees 4. Gifts 5. Reimbursements 6. State appropriations 7. Interest income on the fund	To be determined.	To be determined.
Delaware Leaking Underground Petroleum Storage Tank Response Fund	Nonlapsing revolving fund; Covers remedial cleanup costs after a \$2,500 deductible if LUSTs are reported by December 1988. After that date, the trust fund covers cleanup costs up to \$1 million after a \$100,000 deductible. Establishes a \$100,000 environmental liability limit for owners and operators and a \$300,000 limit for third-party claims.	1. Cost recovery from the owner/operator 2. Expenses, costs, and judgments recovered pursuant to the Act 3. Interest income from fund 4. Reimbursements under Federal law 5. Tank registration fees	Yes Remedial costs over \$2,500 for LUSTs reported by 12/88. After that date, \$100,000 to \$1 million per occurrence per facility.	Yes \$300,000 to \$1 million per occurrence per facility.

# EXHIBIT 7-2 (continued)

## STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
Florida Inland Protection Trust Fund	Set up to allow the Dept. of Natural Resources to respond without delay to incidents of inland petroleum contamination; nonlapsing, revolving fund.	1. Tank registration and renewal fees 2. Excise tax on petroleum products 3. Penalties 4. Loan of five million dollars from the Florida Coastal Protection Trust Fund 5. Cost recovery 6. Interest income from the fund	Yes Funds for State-sponsored CA only.	No
Early Detection Incentive Program (part of the Inland Protection Trust Fund)	Amnesty period set up from 7/1/86 to 10/1/88 during which the State will clean up all reported leaks meeting certain criteria.	See above	Yes No defined limit; reimbursement at "reasonable rates for allowable costs."	No
Petroleum Liability Insurance Program	Provides \$1 million third-party liability insurance and \$1 million restoration insurance to qualified tank owner operators.	1. Tank registration and renewal fees for restoration coverage 2. Excise tax on petroleum products for restoration coverage 3. Premium for third-party liability	No	Yes
Georgia UST Environmental Corrective Action Trust Fund	Dept. of Natural Resources Board establishes criteria for reimbursing tank owner/operators for corrective actions. Tank replacement and retrofit are not eligible costs.	1. Tank fees	Yes Owner/operator pays first \$10,000 and then after cleanup submits eligible CA costs for reimbursement.	No
Illinois Underground Storage Tank Fund	Only available to tank owners/operators who have registered their tanks and paid an annual fee of \$100. Funds are available for cleanup where the owner/operator refuses to comply, cannot be found, or there is an emergency.	1. Annual \$100 fee from UST owners 2. Cost recovery	Yes Covers CA costs from \$100,000 to \$1 million.	No
Indiana Underground Petroleum Storage Tank Trust Fund / Underground Petroleum Storage Tank Excess Liability Fund	The Trust Fund is designed for use by the Dept. of Environmental Management for costs incurred by the State for CA. The Excess Liability Fund may be used by owners and operators for CA costs between \$100,000 and \$1 million. Includes a study for future funding needs and the establishment of a risk retention group.	1. Annual registration fees	Yes Covers CA costs between \$100,000 and \$1 million.	No

# EXHIBIT 7-2 (continued)

## STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
Iowa Comprehensive Petroleum Underground Storage Tank Fund [PROPOSED]	Establishes a "deductible" or minimum financial responsibility requirement for owners and operators of \$20,000 for CA and third-party liability costs. An owner or operator may apply to the State for coverage above the deductible up to \$1 million per occurrence. Also allows an owner or operator to apply for full coverage by the fund under specified conditions. The minimum fund amount is \$5 million.	1. Risk-based premiums 2. Tank fees 3. Cost recovery and penalties 4. Interest income from the fund 5. Gifts, grants (including Federal grants), and appropriations	Yes Upon application to the State, an owner or operator may qualify for either full coverage or meet a \$20,000 "deductible" up to \$1 million per occurrence.	Yes Upon application to the State, an owner or operator may qualify for either full coverage or meet a \$20,000 "deductible" up to \$1 million per occurrence.
Louisiana Environmental Programs Trust Fund / Underground Storage Tank Trust Fund	The fund is set up to defray the cost of the State UST program, including State-initiated CA; also provides matching funds for Federal UST grant money.	1. Registration fees 2. Annual monitoring and maintenance fees	Yes Funds for State-sponsored CA only.	No
Coastal and Inland Surface Oil Clean-up Fund (CISOCF)	Nonlapsing, revolving fund; Fund total is limited to \$4,500,000.	1. License fees 2. Funds loaned from the Ground Water Oil Clean-up Fund 3. Penalties 4. Interest income on funds invested 5. Cost recovery 6. Federal matching funds 7. Borrowing of funds by and between CISOCF	Yes Funds for State-sponsored CA only.	Yes No defined limit on the level of coverage; six month limitation on filing a claim after an occurrence.
Massachusetts Underground Storage Tank Petroleum Cleanup Fund [PROPOSED]	Funds will be provided at the discretion of the State for reimbursement of CA costs over \$5,000 up to \$1 million, including third-party claims. Eligibility is confined to those owners and operators who are in compliance with the State UST regulations.	1. Petroleum fee (suspended when fund balance is over \$30 million; reinstated at a balance of \$10 million) 2. Interest income on the fund	Yes Covers CA costs between \$5,000 and \$1 million.	Yes Covers third-party costs between \$5,000 and \$1 million.
Minnesota Petroleum Tank Release Cleanup Fund	Provides authority to the Pollution Control Agency to take or compel CA. Available to owners and operators who have taken corrective action in response to a release reported on or after 6/4/87. Provides for reimbursement of 75% of eligible CA costs greater than \$10,000 and less than \$100,000. UST owner or operator must be in compliance with all applicable State and Federal laws at the time of the release.	1. Cost recovery from responsible parties 2. Civil penalties 3. Certification fees 4. Gifts, grants other than Federal grants, reimbursements, or appropriations from any source intended to be used for the purposes of the fund 5. Interest income from fund 6. Petroleum tank release cleanup fee (only if the fund balance falls below \$1 million)	Yes Reimbursement for 75% of CA costs greater than \$10,000 and less than \$100,000.	No

# EXHIBIT 7-2 (continued)

## STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
Mississippi Groundwater Protection Trust Fund	A revolving fund for the investigation and assessment of contamination sites, restoration and replacement of potable water supplies, and rehabilitation of contamination sites. The owner or operator is liable for the costs if he or she is not in "substantial compliance" on the date of discharge. When the balance of the fund reaches \$6 million, the funding fee will abate until the balance falls below \$4 million, at which point the fee is reimposed. Establishes a two-year grace period from the date of enactment (July 1, 1988), during which all CA costs are covered under specified conditions.	1. Environmental protection fee on all motor fuel distributor sales and deliveries 2. Interest income on the fund 3. Federal grants 4. Tank regulatory fee 5. Cost recovery from owners not in substantial compliance on the date the release is reported	Yes Reimbursement upon application--no \$1,000,000 limit during the grace period. After the two-year grace period, the State will establish minimum financial responsibility requirements for CA not exceeding \$100,000 per occurrence.	Yes \$1,000,000 per occurrence limit. After the two-year grace period, the State will establish minimum financial responsibility requirements for third-party liability not exceeding \$300,000 per occurrence. (The State will cover claims up to \$700,000).
New Hampshire Oil Discharge and Disposal Cleanup Fund	Provides partial reimbursement to owners and operators of USTs (including home heating fuel tanks) with a capacity equal to or greater than 1,100 gallons and who are in compliance with the regulatory requirements. Reimbursement is provided for CA and third-party liability costs according to the number of facilities owned by the owner or operator. At \$5 million, the fee abates until the fund drops below \$2.5 million. Transfer and transport fee and cleanup fund will lapse on January 1, 1994.	1. Per gallon fee on oil and oil product transfer or transport within or into the state 2. Per barrel license fee	Yes Owners and operators of one facility are responsible for the initial \$5,000 of CA costs; two to nineteen facilities, the initial \$20,000; twenty or more, the initial \$30,000; coverage provided up to \$1 million.	Yes Owners and operators of one facility are responsible for the initial \$5,000 of CA costs; two to nineteen facilities the initial \$20,000; twenty or more the initial \$30,000; coverage up to \$1 million.
New Jersey Spill Compensation Fund	Money available to the NJDEP to pay for cleanups and indemnify its contractors in the event they cannot obtain insurance, indemnification by the DEP expires 1/1/88; also allows preventive measures by the DEP; Nonlapsing, revolving fund.	1. Spill Compensation and Control Tax 2. Penalties 3. Cost recovery 4. Automatic liens against the property of the discharger 5. Interest received on the fund 6. Federal government securities and interest 7. State appropriation	Not for the owner or operator; only DEP initiated actions and reimbursement for third-party cleanups (including municipality cleanup where the DEP has approved the plans).	Yes No limitation on the level of coverage; also indemnification for contractors by the DEP was provided through 1/1/88.



# EXHIBIT 7-2 (continued)

## STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
New Mexico Environmental Impairment Cleanup Fund	Provides reimbursement of 50% of owner/operator CA costs over \$150,000 up to \$750,000, and reimbursement for 100% of the costs from \$750,000 to \$1 million. The balance of the fund is set to range from \$5 million to \$2 million. Fund covers all State-registered USTs.	1. Gasoline and special fuels surcharge tax 2. Cost recovery	Yes Covers 50% of CA costs from \$150,000 to \$750,000, and 100% of CA costs from \$750,000 to \$1 million.	No
New York Environmental Protection and Spill Compensation Fund	Nonlapsing, revolving fund; claims against the fund have to be filed within three years of the date of discovery of damage and within ten years of the date of the incident which caused the damage. There is no limit on the amount of awards.	1. License fees 2. Surcharge on license fees 3. Penalties 4. Cost recovery 5. Interest received on the fund 6. Reimbursements	Yes Covers State-initiated CA; the discharger and the fund are liable for all cleanup and removal costs and all direct and indirect damages.	Yes No limit on the amount of awards.
Oregon Leaking Underground Storage Tank Cleanup Fund	Provides a source of funds for State-initiated CA; also matching funds for Federal CA under the Solid Waste Disposal Act Amendments of 1980.	1. Cost recovery 2. Penalties, fines, and damages recovered	Yes Funds for State-sponsored CA only.	No
Underground Storage Tank Insurance Fund	Provides the authority to establish a fee-supported fund covering the financial assurance requirements for owners and operators.	1. Annual Financial Responsibility (FR) fee (to be determined) levied on owners and operators	Yes Set according to the FR requirements.	Yes Set according to the FR requirements.
South Carolina State Underground Petroleum Environmental Response Bank Account (SUPERB)	Fund will reimburse owner/operator for cleanup expenditures due to early detection of releases from 12/31/87 to 12/31/89. After this grace period, the fund will reimburse from \$100,000 to \$1 million as long as funds are available.	1. Registration fee on regulated tanks 2. Interest income on the fund	Yes As long as funds are available	No
South Dakota Petroleum Release Compensation Fund	A \$5 million revolving fund created to cover the costs of administering the petroleum release program, to reimburse tank owner/operators for corrective action, and promote research and development efforts concerning cleanups.	1. Tank inspection fee 2. Cost recovery 3. Interest income on the fund 4. Gifts, grants 5. One-time interagency allocation	Yes Covers costs of CA from \$10,000 to \$90,000	No

## EXHIBIT 7-2 (continued)

### STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
Tennessee Petroleum Underground Storage Tank Fund	Nonlapsing, revolving fund with a minimum balance of \$2 million and a maximum balance of \$5 million. After the first year the Act is in effect, the CA coverage will be set at a level between \$50,000 and \$100,000 by the State. Likewise, the third-party liability coverage will be set between \$150,000 and \$300,000 after the first year.	1. Fees 2. Civil penalties and damages 3. Interest income from the fund 4. State appropriations	Yes 100% of CA costs over \$75,000 up to \$1 million per occurrence.	Yes Covers all claims in excess of \$150,000 up to \$1 million per occurrence.
Vermont Petroleum Cleanup Fund	The fund provides assistance to uninsured owners and operators in meeting the State financial responsibility requirements. It also provides a source of funds for State-initiated CA in emergencies and other situations where there is no owner or operator found, or he or she cannot or will not take CA. In these cases, the fund allows for cost recovery where appropriate. The fund may be used to cover any cost in setting up a risk retention group that is in excess of "reasonable" contributions by the participants.	1. Licensing fees 2. Interest income from the fund 3. Reimbursement and cost recovery 4. General fund appropriations	Yes Covers CA costs between \$100,000 and \$1 million.	Yes Covers third-party compensation costs between \$300,000 and \$1 million.
Environmental Contingency Fund	Authorizes the Secretary of the VT Agency of Environmental Conservation (AEC) to take CA in cases where "the discharging party is unknown, cannot be contacted, is unwilling to take action or does not take timely action."	1. Permit filing fees 2. Hazardous waste generator tax 3. Cost recovery 4. Federal matching funds	Yes Funds for State- sponsored CA only; level of coverage not defined except for "individual non- emergency situations" where the limit is \$50,000/situation.	No
Risk Retention Pool	Authorizes owners and operators of USTs to set up insurance pools with the Banking and Insurance Commissioner's approval.	1. Contributions from pool members	Determined on a case- by-case basis.	Determined on a case- by-case basis.

# EXHIBIT 7-2 (concluded)

## STATE FUND OR OTHER STATE ASSURANCE PROGRAMS COVERING PETROLEUM RELEASES

(as of September 1988)

State/Fund Title	Eligibility/Description	Revenue Source	Coverage For	
			Corrective Action	Third-Party Liability
Virginia Underground Petroleum Storage Tank Fund	The State will adopt financial responsibility requirements for owner and operators of not less than \$100,000 for CA and \$300,000 for third-party liability. The fund also is designed to assist in the administration of the State regulatory program for USTs and provides a source of funds for State-initiated CA and matching funds in accordance with the Water Resources Development Act of 1986 (P.L. 99-662). The fund contains \$5 million for 1988.	1. Expenses, costs, and judgments recovered 2. Federal reimbursements 3. Interest income from fund 4. State appropriation 5. Cost recovery	Yes \$100,000 to \$1 million per facility.	Yes \$300,000 to \$1 million per occurrence.
Wyoming Environmental Pollution Mitigation Account [PROPOSED]	The fund provides for prompt State response to UST releases or threats of releases, administrative costs, and reimbursement of responsible persons according to certain requirements. The fund does not allow for reimbursements that exceed the amount of money in the fund. Eligible responsible parties may be reimbursed for all CA costs in excess of \$50,000 and third-party liability costs in excess of \$100,000.	1. Penalties and judgments 2. Reimbursements 3. Registration fees 4. Cost recovery	Yes Provides reimbursement of CA costs in excess of \$50,000 for eligible responsible persons.	Yes Provides reimbursement of third-party liability costs in excess of \$100,000 for eligible responsible persons.

### **SECTION III**

### **APPENDICES**

## APPENDIX A

### SUMMARY OF FEDERAL FINANCIAL RESPONSIBILITY REQUIREMENTS

#### WHAT FEDERAL LAW REQUIRES

Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), mandates that EPA promulgate release detection, prevention, and corrective action regulations for underground storage tanks (USTs)<sup>1</sup> containing regulated substances, including petroleum<sup>2</sup> and hazardous substances.<sup>3</sup>

In 1986, Congress amended Subtitle I of RCRA with the passage of the Superfund Amendments and Reauthorization Act (SARA). SARA required EPA to establish financial responsibility requirements for the costs of taking corrective action and compensating third parties for bodily injury and property damage caused by accidental releases of petroleum and hazardous substances. The statute allows UST owners or operators to satisfy the financial responsibility requirements using one or a combination of mechanisms, including insurance, guarantees, surety bonds, letters of credit, qualification as a self-insurer, or other methods deemed acceptable by the EPA Administrator. The statute establishes a minimum level of coverage at \$1 million per occurrence for USTs at facilities engaged in petroleum refining, distribution, or marketing and an appropriate annual aggregate, but permits the Administrator to set lower per occurrence limits for all other USTs.

If EPA makes a determination that financial assurance is not generally available for a particular class or category of USTs, it may suspend enforcement of the financial responsibility requirements for 180 days. To obtain a suspension, the class must demonstrate that a risk retention group is being formed or a State in which the class exists must be attempting to establish a State fund. The initial suspension period may not exceed 180 days. EPA may grant subsequent 180-day suspensions if significant progress has been made in forming a risk retention group, or if the State in which the class is located is unwilling or unable to establish a fund and formation of a risk retention group is not possible.

SARA also established the Leaking UST Trust Fund, a \$500 million fund to pay for corrective action, including cleanup, enforcement, and cost recovery actions, for

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<sup>1</sup> Under Section 9001(1) of Subtitle I, an UST is defined as any one or combination of tanks (including pipes connected to the tank or tanks) that is used to contain an accumulation of regulated substances, and the volume of which is at least 10 percent or more beneath the surface of the ground. This section excludes certain USTs, such as farm or residential tanks of 1,100 gallons or less, septic tanks, pipeline facilities, and surface impoundments.

<sup>2</sup> Under Section 9001(2), petroleum is defined as "petroleum including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute)."

<sup>3</sup> Under Section 9001(2), hazardous substances are defined as "an accumulation of hazardous substances defined in section 101(14) of CERCLA ..., other than any substance regulated as a hazardous waste under Subtitle C of RCRA."

petroleum releases. The Trust Fund may not be used to compensate third parties for damages or to clean up hazardous substance releases.

## **APPENDIX B**

### **GLOSSARY OF FINANCIAL ASSURANCE TERMS**

#### **Accidental Release**

Accidental release means any sudden or nonsudden release of petroleum from an underground storage tank that results in a need for corrective action and/or compensation for bodily injury, or property damage neither expected nor intended by the tank owner or operator.

#### **Annual Aggregate**

Annual aggregate is the maximum liability protection afforded by an insurance policy in any given year. For example, if insurance provides liability coverage of \$1 million per occurrence with an annual aggregate of \$5 million, the insured will be covered for each occurrence, up to \$1 million, but no more than \$5 million a year.

#### **Corrective Action Costs**

Corrective action costs are costs incurred while cleaning up a petroleum release from an underground storage tank.

#### **Financial Assurance Mechanism**

A financial assurance mechanism is a financial instrument, such as a State fund program, guarantee, letter of credit, surety bond, or insurance, that is available to an UST owner or operator to demonstrate financial responsibility.

#### **Financial Responsibility**

Financial responsibility refers to the requirement under RCRA Subtitle I whereby firms or other entities engaged in environmentally dangerous activities must provide funds in advance for potential damage to the environment or third parties.

#### **Guarantee**

A guarantee is a contract in which the guarantor undertakes to answer for the payment of another's debt or the performance of another's duty, liability, or obligation. A guarantee is one of the financial assurance mechanisms that can be used by UST owners or operators to satisfy the RCRA Subtitle I financial responsibility requirements.

#### **Guarantor**

A guarantor is the government entity, person, or company who provides a guarantee.

#### **Insurance Pool**

An insurance pool is a State insurance program or an association established for the purpose of sharing certain types of loss exposures, such as on environmental impairment liability policies, on an agreed-upon basis. Members of the pool may share the limits of liability by specified percentages or dollar amounts.

### **Letter of Credit**

A letter of credit is a mechanism by which the credit of one party, such as a bank, is extended on behalf of a second party, called the account party, to a third party, the beneficiary. The issuer allows the beneficiary to draw funds upon the presentation of certain documents specified in the letter of credit. A letter of credit is one of the financial assurance mechanisms that can be used by UST owners or operators to satisfy the RCRA Subtitle I financial responsibility requirements.

### **Occurrence**

Occurrence is an accident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank.

### **Premium**

A premium is the price paid for an insurance contract or policy.

### **Risk Retention Group**

Under the Risk Retention Act of 1986, as amended, firms in the same industry may jointly establish a captive insurance company that, in turn, offers members environmental liability insurance at favorable rates. A captive insurer is an insurance company established by a company or group of companies to ensure their own risks or risks common to the group. Risk retention groups need only to be chartered in one State in order to offer insurance in any State, unlike traditional insurance companies.

### **Self-Insurance**

Self-insurance means the financing of losses from within the financial structure of a company or other entity, rather than transferring losses to an insurance company through purchase of liability insurance. If an UST owner or operator can pass a financial test, self-insurance is one of the financial assurance mechanisms that can be used to satisfy the RCRA Subtitle I financial responsibility requirements.

### **Surety Bonds**

A surety bond is a contract providing for monetary compensation or performance should there be a failure to perform any specific act within a specific period. A surety bond is one of the financial assurance mechanisms that can be used by UST owners or operators to satisfy the RCRA Subtitle I financial responsibility requirements.

### **Third-Party Compensation Costs**

Third-party compensation costs are costs incurred to pay any third party for bodily injury or property damage caused by a petroleum release. A third party is a person not party to a financial assurance contract between provider and insured, but who may make claims under the contract. For example, a person whose well was contaminated by an UST petroleum releases may bring an action against the UST owner or operator.



### **Underground Storage Tank**

RCRA Subtitle I, section 9001(1) defines an underground storage tank as "any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. Such term does not include any--

- (A) farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,
- (B) tank used for storing heating oil for consumptive use on the premises where stored,
- (C) septic tank,
- (D) pipeline facility (including gathering lines) regulated under--
  - (i) the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.),
  - (ii) the Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et seq.), or
  - (iii) which is an intrastate pipeline facility regulated under State laws comparable to the provisions of law referred to in clause (i) or (ii) of this subparagraph.
- (E) surface impoundment, pit, pond or lagoon,
- (F) storm water or waste water collection system,
- (G) flow-through process tank,
- (H) liquid trap or associated gathering lines directly related to oil or gas production and gathering operations, or
- (I) storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft or tunnel) if the storage tank is situated upon or above the surface of the floor."

### **Underwriting**

Underwriting is the practice of insurance. Underwriters agree to become answerable for a designated loss in return for receiving a premium. Underwriting also is the process of rating the acceptability of risks for insurance policies.

Source: "Glossary of Terms Related to Financial Assurance," prepared for the Office of Solid Waste, Environmental Protection Agency, by ICF Incorporated, July 21, 1986.

**APPENDIX C**  
**LIST OF STATE CONTACTS**

**Alabama**

Contact: Sonja Massey  
Title/Position: Ground-Water Section Chief  
Phone Number: (205) 271-7832  
Address: Alabama Department of Environmental Management  
Ground Water Section/Water Division  
1751 Federal Drive  
Montgomery, Alabama 36130

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**Alaska**

Contact: Stan Osborn  
Title/Position: Coordinator  
Phone Number: (907) 465-2653  
Address: Department of Environmental Conservation  
Pouch O  
Juneau, Alaska 99811

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**Arizona**

Contact: Gerald Teletzke  
Title/Position: Director, Arizona Department of Environmental Quality  
Phone Number: (602) 257-2300  
Address: Arizona Department of Environmental Quality  
Environmental Health Services  
2005 North Central  
Phoenix, Arizona 85004

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**Arkansas**

Contact: Ed Dunn  
Title/Position: Coordinator  
Phone Number: (501) 562-7444  
Address: Arkansas Department of Pollution  
Control and Ecology  
P.O. Box 9583  
Little Rock, Arkansas 72219

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**California**

Contact: James W. Baetge  
Title/Position: Coordinator  
Phone Number: (916) 445-9552  
Address: State Water Resources Control Board  
P.O. Box 100  
Sacramento, California 95801

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**Colorado**

Contact: Scott Winters  
Title/Position: Coordinator  
Phone Number: (303) 331-4864  
Address: Colorado Department of Health  
Waste Management Division  
Underground Tank Program  
4210 East 11th Avenue  
Denver, Colorado 80220

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**Connecticut**

Contact: Scott Deshefy  
Title/Position: Program Manager, UST/LUST  
Phone Number: (203) 566-4630  
Address: Hazardous Materials Management Unit  
Department of Environmental Protection  
State Office Building  
165 Capitol Avenue  
Hartford, Connecticut 06106

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**Delaware**

Contact: Tom Crosby  
Title/Position: UST Coordinator  
Phone Number: (302) 736-5744  
Address: Division of Air and Waste Management  
Department of Natural Resources and Environmental Control  
P.O. Box 1401  
89 Kings Highway  
Dover, Delaware 19903

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**District of Columbia**

Contact: Shawn Norton  
Title/Position: UST Coordinator  
Phone Number: (202) 783-3207  
Address: Department of Consumer and Regulatory Affairs  
Pesticides and Hazardous Waste Management Branch  
Room 114  
5010 Overlook Avenue, S.W.  
Washington, D.C. 20032

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**Florida**

Contact: Marshall Mott-Smith  
Title/Position: Contact  
Phone Number: (904) 488-0300  
Address: Florida Department of Environmental Regulation  
Solid Waste Section  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399

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**Georgia** (Georgia does not have a UST/LUST program)

Contact: Randy Williams  
Title/Position:  
Phone Number: (404) 656-7404  
Address: Georgia Environmental Protection Division  
3420 Norman Berry Drive  
Hapeville, Georgia 30334

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**Hawaii**

Contact: Denis Lau  
Title/Position: Coordinator  
Phone Number: (808) 548-8873  
Address: Hazardous Waste Program  
645 Halekauwila Street  
Honolulu, Hawaii 96813

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**Idaho**

Contact: Rick Jarvis  
Title/Position: Coordinator  
Phone Number: (208) 334-5847  
Address: Water Quality Bureau  
Idaho Department of Health and Welfare  
Division of Environment  
450 West State Street  
Boise, Idaho 83720

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**Illinois**

Contact: E. William Radlinski, Lead Agency  
Title/Position: Manager, UST/LUST Coordinator  
Phone Number: (217) 782-6760  
Address: Illinois EPA  
Division of Land Pollution Control  
Environmental Protection Agency  
2200 Churchill Road, Room A-104  
Springfield, Illinois 62706

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**Indiana**

Contact: Jacqueline Strecker  
Title/Position: Coordinator  
Phone Number: (317) 243-5055  
Address: Underground Storage Tank Program  
Office of Environmental Response  
Indiana Department of Environmental Management  
105 South Meridian Street  
Indianapolis, Indiana 46225

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**Iowa**

Contact: Keith W. Bridson  
Title/Position: UST/LUST Coordinator  
Phone Number: (515) 281-8135  
Address: Iowa Department of Water, Air, and Waste Management  
900 East Grand  
Des Moines, Iowa 50319

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**Kansas**

Contact: Chuck Linn  
Title/Position: UST Coordinator  
Phone Number: (913) 286-1594  
Address: Kansas Department of Health and Environment  
Forbes Field, Building 740  
Topeka, Kansas 66620

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**Kentucky**

Contact: Jim Jarman  
Title/Position: Chief, UST Section  
Phone Number: (502) 564-6716  
Address: Department for Environmental Protection  
Hazardous Waste Branch  
Fort Boone Plaza, Building #2  
18 Reilly Road  
Frankfort, Kentucky 40601

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**Louisiana**

Contact: Joan Albripton  
Title/Position: UST Program Coordinator  
Phone Number: (504) 342-1265  
Address: Louisiana Department of Environmental Quality  
P.O. Box 44066  
Baton Rouge, Louisiana 70804

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**Maine**

Contact: George Seel  
Title/Position: UST Coordinator  
Phone Number: (207) 289-2651  
Address: Underground Tanks Program  
Bureau of Oil and Hazardous Material Control  
Department of Environmental Protection  
State House - Station 17  
Augusta, Maine 04333

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**Maryland**

Contact: Bernie Bigham  
Title/Position: Coordinator  
Phone Number: (301) 225-5649  
Address: Department of the Environment  
201 West Preston Street  
Baltimore, Maryland 21201

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**Massachusetts**

Contact: William McCabe  
Title/Position: Department Commissioner  
Phone Number: (617) 566-4500  
Address: UST Registry, Department of Public Safety  
1010 Commonwealth Avenue  
Boston, Massachusetts 02215

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**Michigan**

Contact: R. Dowe Parsons  
Title/Position: UST Coordinator  
Phone Number: (517) 373-2794  
Address: Michigan Department of Natural Resources  
Waste Management Division  
P.O. Box 30028  
Lansing, Michigan 48909

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**Minnesota**

Contact: John Holck  
Title/Position: UST Coordinator  
Phone Number: (612) 296-7743  
Address: Underground Storage Tank Program  
Division of Solid and Hazardous Wastes  
Minnesota Pollution Control Agency  
520 West Lafayette Road  
St. Paul, Minnesota 55155

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**Mississippi**

Contact: Walter Huff  
Title/Position: UST Coordinator  
Phone Number: (601) 961-5171  
Address: Department of Natural Resources  
Bureau of Pollution Control  
Underground Storage Tank Section  
P.O. Box 10385  
Jackson, Mississippi 39209

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**Missouri**

Contact: Gordon Ackley  
Title/Position: UST Coordinator  
Phone Number: (314) 751-7428  
Address: Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

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**Montana**

Contact: Larry Mitchell  
Title/Position: Coordinator  
Phone Number: (406) 444-2821  
Address: Solid and Hazardous Waste Bureau  
Department of Health and Environmental Science  
Cogswell Building, Room B-201  
Helena, Montana 59620

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**Nebraska**

Contact: Jon Gross  
Title/Position: Fire Marshall  
Phone Number: (402) 471-9465  
Address: Nebraska State Fire Marshal  
P.O. Box 94677  
Lincoln, Nebraska 68509-4677

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**Nevada**

Contact: Allen Biaggi  
Title/Position: UST Coordinator  
Phone Number: (702) 885-5872  
Address: Division of Environmental Protection  
Department of Conservation and Natural Resources  
Capitol Complex, 201 South Fall Street  
Carson City, Nevada 89710

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**New Hampshire**

Contact: Phil Lavoie  
Title/Position: Coordinator/Notification  
Phone Number: (603) 271-3503  
Address: New Hampshire Department of Environmental Services  
Water Supply and Pollution Control Division  
Hazen Drive  
P.O. Box 95  
Concord, New Hampshire 03301

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**New Jersey**

Contact: Kenneth Goldstein  
Title/Position:  
Phone Number: (609) 984-3156  
Address: Underground Storage Tank Coordinator  
Department of Environmental Protection  
Division of Water Resources (CN-029)  
Trenton, New Jersey 08625

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**New Mexico**

Contact: Karl Souder  
Title/Position: UST Manager  
Phone Number: (505) 827-2894  
Address: New Mexico Environmental Improvement Division  
Groundwater/Hazardous Waste Bureau  
P.O. Box 968  
Santa Fe, New Mexico 87504

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**New York**

Contact: Paul Sausville  
Title/Position:  
Phone Number: (518) 457-4351  
Address: Bulk Storage Section  
Division of Water  
Department of Environmental Conservation  
50 Wolf Road, Room 326  
Albany, New York 12233-0001

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**North Carolina**

Contact: Lee Laymon  
Title/Position: Chief, Ground-Water Operations Branch  
Phone Number: (919) 733-3221  
Address: Division of Environmental Management  
Ground-Water Operations Branch  
Department of Natural Resources and Community Development  
P.O. Box 27687  
Raleigh, North Carolina 27611

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**North Dakota**

Contact: Gary Berreth  
Title/Position: Coordinator  
Phone Number: (701) 224-3498  
Address: Division of Hazardous Management and Special Studies  
North Dakota Department of Health  
Box 5520  
Bismarck, North Dakota 58502-5520

---

**Ohio**

Contact: Mike Nimocks  
Title/Position: UST Coordinator  
Phone Number: (614) 864-5510  
Address: State Fire Marshal's Office  
Department of Commerce  
8895 East Main Street  
Reynoldsburg, Ohio 43068

---

**Oklahoma**

Contact: Walter Kramer  
Title/Position: Coordinator  
Phone Number: (405) 521-3107  
Address: Underground Storage Tank Program  
Oklahoma Corporation Comm.  
Jim Thorpe Building  
Oklahoma City, Oklahoma 73105

---

**Oregon**

Contact: Dennis Dickerson  
Title/Position: UST Coordinator  
Phone Number: (503) 229-5153  
Address: Underground Storage Tank Program  
Hazardous and Solid Waste Division  
Department of Environmental Quality  
P.O. Box 1760  
Portland, Oregon 97207

---

**Pennsylvania**

Contact: Foster Diodato  
Title/Position: Coordinator  
Phone Number: (717) 787-8184  
Address: Pennsylvania Department of Environmental Resources  
Bureau of Water Quality Management  
Ground Water Unit  
9th Floor Fulton Building  
P.O. Box 2063  
Harrisburg, Pennsylvania 17120

---

**Rhode Island**

Contact: Sav Mancieri

Title/Position:

Phone Number: (401) 277-2234

Address: UST Registration  
Department of Environmental Management  
83 Park Street  
Providence, Rhode Island 02903

---

**South Carolina**

Contact: Don Duncan

Title/Position: Director, Ground-Water Protection Division

Phone Number: (803) 734-5332

Address: Ground-Water Protection Division  
South Carolina Department of Health and Environmental  
Control  
2600 Bull Street  
Columbia, South Carolina 29201

---

**South Dakota**

Contact: Lee Baron

Title/Position: Coordinator

Phone Number: (605) 773-3296

Address: Office of Water Quality  
Department of Water and Natural Resources  
Joe Foss Building  
Pierre, South Dakota 57501

---

**Tennessee**

Contact: Chuck Head  
Title/Position: Manager, UST Program  
Phone Number: (615) 741-0690  
Address: Division of Ground-Water Protection  
Tennessee Department of Health and Environmental  
150 Ninth Avenue, North  
Nashville, Tennessee 37219-5404

---

**Texas**

Contact: Dwight Russell  
Title/Position: Coordinator  
Phone Number: (512) 463-8180  
Address: Underground Storage Tank Program  
Texas Water Commission  
P.O. Box 13087  
Austin, Texas 78711

---

**Utah**

Contact: Mark Ellis  
Title/Position: Coordinator  
Phone Number: (801) 533-6170  
Address: Division of Environmental Health  
P.O. Box 45500  
Salt Lake City, Utah 84145-0500

---



**Vermont**

Contact: Paul Van Hollebeke  
Title/Position: Coordinator  
Phone Number: (802) 244-8702  
Address: Underground Storage Tank Program  
Vermont AEC/Waste Management Division  
State Office Building  
Montpelier, Vermont 05602

---

**Virginia**

Contact: Russell P. Ellison, III, P.G.  
Title/Position: UST Coordinator  
Phone Number: (804) 367-6350  
Address: Virginia Water Control Board  
P.O. Box 11143  
Richmond, Virginia 23230-1143

---

**Washington**

Contact: Tom Lufkin  
Title/Position: UST Coordinator  
Phone Number: (206) 459-6272  
Address: Department of Ecology, M/S PV-11  
Solid and Hazardous Waste Program  
Olympia, Washington 98504-8711

---

**West Virginia**

Contact: Douglas Steel  
Title/Position: Coordinator  
Phone Number: (304) 348-5935  
Address: Solid and Hazardous Waste  
Ground Water Branch  
West Virginia Department of Natural Resources  
1201 Greenbriar Street  
Charleston, West Virginia 25311

---

**Wisconsin**

Contact: William Morrissey  
Title/Position: UST Coordinator  
Phone Number: (608) 266-7605  
Address: Bureau of Petroleum Inspection  
P.O. Box 7969  
Madison, Wisconsin 53707

---

**Wyoming**

Contact: Jake Strohman  
Title/Position: Coordinator  
Phone Number: (307) 777-7085  
Address: Water Quality Division  
Department of Environmental Quality  
Herschler Building, 4th Floor West  
122 West 25th Street  
Cheyenne, Wyoming 82002

---

**American Samoa**

Contact: Pati Faiai  
Title/Position:  
Phone Number: 10288-011 (684) 633-2682  
Address: Environmental Quality Commission  
Office of the Governor  
American Samoan Government  
Pago Pago, American Samoa 96799

---

**Guam**

Contact: Charles P. Chrisostomo  
Title/Position: Coordinator  
Phone Number: 10288-011 (671) 646-8863  
Address: Guam Environmental Protection Agency  
P.O. Box 2999  
Agana, Guam 96910  
Overseas Operator (Commercial call 646-8863)

---

**Northern Mariana Islands**

Contact: Russell Meachem  
Title/Position: Coordinator  
Phone Number: 10288-011 (607) 234-6984  
Address: Division of Environmental Quality  
P.O. Box 1304  
Commonwealth of Northern Mariana Islands  
Saipan, CM 96950  
Cable address: Gov. NMI Saipan

---

**Puerto Rico**

Contact: Thomas Rivera  
Title/Position:  
Phone Number: (809) 725-0717  
Address: Water Quality Control Area  
Environmental Quality Board  
Commonwealth of Puerto Rico  
Santurce, Puerto Rico

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**Virgin Islands**

Contact: Francine Lang  
Title/Position:  
Phone Number: (809) 774-3320  
Address: 205(J) Coordinator  
Division of Natural Resources Management  
14 F Building 111, Watergut Homes  
Christianstead, St. Croix, Virgin Islands 00820

## APPENDIX D

### MODEL STATE UST FINANCIAL RESPONSIBILITY LEGISLATION

Model UST financial responsibility legislation has been developed by the National Conference of State Legislatures (NCSL) as part of UST model State legislation.<sup>4</sup> The legislation would authorize State departments to promulgate UST financial responsibility rules. Additional language may be necessary to authorize establishment of a State fund or to precisely set detailed financial responsibility requirements, such as amounts of required coverage or allowable financial assurance mechanisms. Components of the model legislation developed by the NCSL follows:

- 1) The Department shall adopt requirements for maintaining evidence of financial responsibility for taking corrective action and compensating third parties for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from operating an underground storage tank.
- 2) If the owner or operator is in bankruptcy, reorganization, or arrangement pursuant to the Federal bankruptcy law, or if jurisdiction in any State or Federal court cannot be obtained over an owner or operator likely to be solvent at the time of judgment, any claim arising from conduct for which evidence of financial responsibility must be provided under this subsection may be asserted directly against the guarantor providing the evidence of financial responsibility. In the case of action pursuant to this subsection, the guarantor is entitled to invoke all rights and defenses which would have been available to the owner or operator if any action had been available to the owner or operator if any action had been brought against the owner or operator by the claimant and which would have been available to the guarantor if an action had been brought against the guarantor by the owner or operator.
- 3) The total liability of a guarantor shall be limited to the aggregate amount which the guarantor has provided as evidence of financial responsibility to the owner or operator under this subsection. This subsection does not limit any other State or Federal statutory, contractual, or common law liability of a guarantor to its owner or operator, including, but not limited to, the liability of the guarantor for bad faith in negotiating or in failing to negotiate the settlement of any claim. This subsection does not diminish the liability of any person under section 107 or 111 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, or other applicable law.
- 4) Corrective action and compensation programs financed by fees on tank owners and operators and administered by the Department may be submitted as evidence of financial responsibility under this section.

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<sup>4</sup> Paul Doyle, Underground Storage Tank Model State Legislation, National Conference of State Legislatures: Denver, Colorado. June 1986.

## APPENDIX E

### INSURANCE AVAILABILITY

The availability of insurance coverage for underground storage tanks (USTs) is currently limited. Some coverage is, however, available from several sources, and the recent entry into the market of new sources suggests that current market conditions may be improving. In future, coverage is most likely to be available from sources specializing in pollution liability coverage because of the expertise required to write the coverage. Insurers are also likely to be more selective concerning the tanks they will cover, and may require tightness testing and tank upgrades as conditions for coverage. This appendix provides an overview of insurers currently offering UST coverage.

#### Major Providers

The following insurers provide the bulk of all UST coverage and are the only insurers currently known to be actively marketing UST policies. For the most part, these insurers write policies only for petroleum marketers.

Federated Mutual currently provides coverage for over 80,000 tanks at 25,000 locations in 39 states. Federated's policies have coverage limits of \$500,000 per occurrence and \$2 million annual aggregate, and most are written with a \$25,000 deductible. These limits are exclusive of legal defense costs. Federated policies can be written to include coverage for cleanup of the insured's site, provided that the cleanup is undertaken to prevent third-party damages. Soil core testing is required as a condition for obtaining coverage.

PETROMARK is a newly formed risk retention group (RRG) offering coverage to petroleum marketers in all fifty states. The group currently has sufficient capital to offer coverage limits of \$1 million per occurrence and \$2 million annual aggregate. The average premium is currently \$2,000 (a one-time capital contribution equal to the premium payment is also required), and policies are written with a \$5,000 deductible. So far, PETROMARK has written policies to cover 575 owners and operators with tanks at 8,100 locations, and is constantly adding new insureds. PETROMARK was organized by The Planning Corporation, an insurance broker that, until the withdrawal of its UST coverage underwriter in July 1987, had supplied UST coverage to over 1,500 marketers with 96,000 tanks at 26,000 locations. PETROMARK is targeting these previous insureds and plans eventually to offer coverage to single station owners and operators as well.

The Pollution Liability Insurance Association (PLIA) is a pool of 14 insurers writing pollution liability policies, including coverage for about 100,000 USTs (although not all members of the pool will cover USTs). PLIA policies have coverage limits of \$1 million per occurrence and \$2 million annual aggregate, with a \$25,000 deductible, and PLIA members will only insure petroleum marketers with 20 or more tanks. In addition, PLIA is somewhat selective about the tanks it will cover; the application process is lengthy and tanks more than ten years old must undergo tightness testing before they can be included in the policy.

Oilmen's Fund offers coverage to petroleum wholesale and retail distributors. Policies have coverage limits of \$500,000 per occurrence and \$1 million annual aggregate, and are available only if other lines of commercial liability coverage are purchased from Oilmen's. Oilmen's will not provide coverage to other marketers, such as gasoline dealers and single station owners and operators.

Michigan Mutual has recently begun offering UST coverage to petroleum marketers, and will write policies in all 50 states. Policies have coverage limits of \$1 million per occurrence and \$2 million annual aggregate, with a \$2,500 deductible. Average premiums are \$1,200 to \$1,600 per site depending on the age of the covered tanks. Michigan Mutual will write policies for single station owners and operators, but will not provide coverage for tanks over 20 years old. Michigan Mutual is selective about the USTs it will insure; owners and operators must demonstrate responsible inventory control and there must be no current problems at the site.

#### **Providers of Coverage to Non-Marketers**

Insurance coverage for UST owners and operators who are not petroleum marketers is more limited in availability than insurance coverage for marketers. This coverage is generally not available from specialized "UST insurers" and is more likely to be provided by an owner or operator's commercial general liability insurer as an accommodation for an existing customer.

Federated Mutual is the only major provider that will write policies for non-marketers. Coverage limits and conditions are the same as those for marketers.

Universal Underwriters recently entered the UST market and will provide coverage to non-marketers at limits of \$1 million per occurrence and \$2 million annual aggregate. Coverage is available only to customers who purchase other lines of coverage from Universal.

Traveler's, Liberty Mutual, and Transamerica all provide UST coverage to selected customers as an accommodation. Liberty Mutual policies have coverage limits of \$1 million per occurrence and \$1 million annual aggregate. Traveler's and Transamerica policies are available at limits under \$1 million. It is likely that there are other insurers who, like these companies, provide UST insurance to certain existing customers under limited circumstances.

#### **Coverage Available Through Trade Associations**

A number of trade associations offer coverage packages to their members that include pollution liability coverage. These packages are generally written through one of the major insurers described above. Package arrangements may make it easier for an owner or operator to obtain coverage by streamlining the application process (e.g., shorter applications, quicker review, waivers from some underwriting conditions, etc.). The National Association of Convenience Stores (NACS) and the Society of Independent Gasoline Marketers of America (SIGMA) both had such group coverage arrangements through The Planning Corporation. The National Association of Truckstop Operators also had a group coverage program. When The Planning Corporation lost its underwriter in July 1987, these associations also lost their group programs. SIGMA is currently putting together a new package arrangement with PLIA to replace the coverage formerly purchased through The Planning Corporation.

**INSURANCE COMPANY ADDRESS LIST:\***

Federated Mutual Insurance Company  
129 East Broadway  
Owatonna, MN 55060  
(507) 455-5200

PETROMARK  
The Planning Corporation  
13347 Sunset Hills Road  
Reston, VA 22090  
(703) 481-0200

Pollution Liability Insurance Association  
1333 Butterfield Road, Suite 100  
Downers Grove, IL 60515  
(312) 969-5300

Oilmen's Fund  
350 Fifth Avenue, Suite 6805  
Empire State Building  
New York, NY 10018  
(212) 629-4290

Michigan Mutual Insurance Company  
28 West Adams Ave.  
Detroit, MI 48226  
(313) 965-8600

Universal Underwriters Insurance Company  
5115 Oak Street  
Kansas City, MO 64112  
(816) 753-5800

The Travelers  
One Tower Square  
Hartford, CT 06183  
(203) 277-0111

Liberty Mutual Insurance Company  
175 Berkeley Street  
Boston, MA 02117  
(617) 357-9500

Transamerica Insurance Company  
1150 South Olive Street  
Los Angeles, CA 90015  
(213) 742-4242

\*Note: These addresses are provided for informational purposes only.



# **INSURING UNDERGROUND STORAGE TANKS:**

## **State-Sponsored Insurance Programs A Program Development Handbook**

**January, 1989**



**1117 Stanford N.E., Albuquerque, NM 87131**

# **Insuring Underground Storage Tanks:**

**State-Sponsored Insurance Programs  
A Program Development Handbook**

**Prepared for Region VI  
of the U.S. Environmental Protection Agency  
Patricia Holt, Project Officer**

**Prepared by  
Institute of Public Law  
University of New Mexico School of Law  
1117 Stanford N.E.  
Albuquerque, NM 87131**

**E.P.A. Assistance I.D. No. X-006432-01-0**

**January, 1989**

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## EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency has adopted regulations requiring that owners and operators of petroleum underground storage tanks be able to demonstrate financial responsibility for their tanks. These requirements are being phased in over a two-year period. By October 26, 1990, all owners or operators governed by the regulations will have to purchase insurance or use another financial mechanism that demonstrates their ability to pay \$1 million or, in some cases, \$500,000 for corrective action costs and third party claims arising from a release of petroleum. Many states will choose to adopt similar requirements in order to obtain primacy of regulation over underground storage tanks (USTs) within their jurisdictions.

EPA's regulations permit UST owners and operators to use state funds or other state assurance programs to demonstrate financial responsibility. Because tank liability insurance is not presently available to all groups of owners and operators, a number of states have established or are considering state assurance programs to help their owners and operators comply with the new financial responsibility requirements.

One of the types of state assurance programs described in EPA's handbook, "Financial Assurance Programs: A Handbook for States", is a state-sponsored insurance program. This Program Development Handbook for State-Sponsored Insurance Programs describes the concept of a state insurance program for underground storage tanks in more detail. It outlines the process a state might go through and the issues it might confront in developing such a program. The handbook is intended to help states evaluate the possibilities for an UST insurance program and, if the concept seems workable, develop a program proposal which suits the state's individual needs.

State-sponsored UST insurance programs have only recently received attention, but the concept of a state insurance program is not new. A number of states have established state workers' compensation insurance programs. Others have created patient compensation funds, health insurance pools and public school insurance programs. Typically, states get into the insurance business when the private insurance market is not providing enough insurance at a reasonable cost to some group that needs insurance.

State insurance programs operate much like private insurance companies. They issue policies or certificates of participation, collect premiums and pay any losses resulting from liabilities the program has agreed to assume. Despite the private insurance program model, however, the state program need not function exactly as a private carrier would function. Since the program is created by statute, it has funding options not available to private insurers. On the other hand, as a public or quasi-public entity, it faces political and legal constraints that do not affect the private carrier.

The handbook recognizes that state environmental agencies are not in the insurance business. Environmental and UST program officials are encouraged to obtain assistance from their counterparts in the state's insurance department, from officials running other state insurance programs or from insurance consultants during the program design process.

A key assumption underlying the handbook's discussion of program design is that no one insurance program is appropriate for all states. Instead of prescribing the "ideal" program, the handbook explores the options a state can choose from to create a program that suits its needs. Chapters III and IV, in particular, explore the program elements or variables which a state can use to adjust the scope and cost of its program or to respond to the political or legal constraints that the program faces.

Some of the variables include:

1. **Participation.** Do all owners and operators have to participate in the program or may they comply with the financial responsibility requirements in some other manner? Mandatory participation increases the size of the program and spreads the risk more evenly. Voluntary participation, on the other hand, is popular with tank owners and fosters development of the private insurance market.

2. **Underwriting Standards.** Will the program accept all owners and operators whose facilities meet the environmental agency's technical tank standards, or may the program use stricter underwriting standards and conditions of coverage to reduce the number of claims it expects to pay? The program's approach will affect both the number of owners and operators eligible for coverage and the cost of coverage.

3. **Coverage Issues.** Will the program cover just corrective action, just third party claims or both? What policy limits and deductibles should be selected? Coverage decisions affect the cost of the program and the extent to which the program will help its insureds meet the UST financial responsibility requirements.

Responsibility for existing leaks is a major coverage issue. EPA estimates that 25 - 30% of the tanks in the ground are leaking currently. The cost of cleaning up leaks which have already occurred is so high that the state's approach to this issue will have a tremendous effect on the costs of the program.

4. **Funding Options.** A variety of funding sources are discussed, although the available options depend on the state's legal, political, and financial climate. A central issue is whether funds other than premiums will be used as a source of program income. Since the handbook uses private insurance programs as a model, it assumes that the program will want to support itself to the extent possible through premiums charged the participants. However, gasoline fees or taxes, per tank fees and other sources of revenue could be tapped to pay some of the program's costs or to provide it with a source of initial capital.

A key to designing an effective state insurance program is to recognize the inevitable conflict between the desire to provide full coverage to all tank owners and operators and the desire to limit the state's financial involvement. Each state must decide what trade-offs it is willing to make to develop a viable program.

If the legislature decides that the program must be supported solely by the owners and operators being insured by it, the program must be careful about what tanks it insures and what costs it covers, or premiums may rise to unacceptable levels. If, on the other hand, the state's driving concern is that all tank-owning businesses be allowed to participate in the program, high program cost projections may force the state to consider a broad-based funding source, such as a gasoline fee or tax, to supplement program revenues.

While these are the key issues in establishing a state insurance program, a number of other decisions must be made along the way. These include such matters as who will run the program, what laws will apply to the program, whether the program will pay the insureds' defense costs and how premiums will be adjusted to reflect risk. Some of these decisions should be made before legislation is drafted and others can be made by the program's board and administrators after legislation is adopted.

Most of the handbook focuses on a state insurance program that would provide coverage directly to tank owners and operators. Another alternative, described in Chapter V of the handbook, would be a state reinsurance program. Private insurance companies try to obtain reinsurance to protect themselves from high losses. However, reinsurance for pollution risks has not been readily available. A state program could offer reinsurance to one or more carriers, who would write the policies, work with the insured owners and operators, conduct risk management activity and pay the claims. The state's role in providing insurance would be minimized and state administrative costs would be less than for a direct insurance program.



## I. INTRODUCTION

The U.S. Environmental Protection Agency has adopted regulations, pursuant to Subtitle I of the Resource Conservation and Recovery Act (RCRA), which will require the owners or operators of petroleum underground storage tanks to demonstrate financial responsibility for their tanks. Petroleum marketers and owners or operators whose tanks handle more than 10,000 gallons of petroleum a month will have to purchase insurance or use some other financial mechanism that demonstrates their ability to pay a minimum of \$1 million for corrective action and third party claims arising from a release of petroleum. Other tank owners and operators will have to show that at least \$500,000 is available to cover the costs of a release from their underground storage tanks. These requirements are being phased in over a two-year period beginning January 1989.

One financial mechanism permitted by the regulations is the state assurance program. State assurance programs that are structured to meet financial responsibility requirements may be used by tank owners and operators within the state to demonstrate financial responsibility for those costs covered by the program. In response to this provision and to the apparent inability of many owners and operators to obtain tank liability insurance, state assurance programs have been established or are under consideration throughout the country.

States have taken a variety of approaches in proposing and designing state assurance programs. One approach is a fund guaranteeing that corrective action or third party claims will be paid by the fund if no responsible party is willing and able to pay. When the fund pays a claim, it seeks recovery of its expenditures from the tank owner, operator or other responsible party. Another approach is a fund or program that pays tank-related claims but does not seek cost recovery from tank owners or operators. This handbook focuses on a state program in the latter category - a state insurance program created by legislation to provide insurance coverage for tanks within the state.

### WHAT IS A STATE INSURANCE PROGRAM?

A state insurance program is a mechanism for providing insurance coverage for petroleum underground storage tanks when commercial pollution liability insurance for underground tanks is not readily available. In its purest form, a state insurance program is modeled closely after a private liability carrier. It issues policies, collects premiums and pays any losses resulting from liabilities it has agreed to assume.

States may vary in the degree to which their insurance programs resemble private insurance. States may, for example, incorporate some degree

of public financing into the program. The characteristics that generally distinguish insurance programs from other state assurance mechanisms are that:

- (1) an insurance program protects the insured against certain specified liabilities, i.e., it pays tank-related claims without recourse against the insured tank owner or operator; and
- (2) insurance is typically funded by risk-based premiums.

Although states have only recently begun to consider insurance programs for underground storage tanks, the basic concept of state-sponsored insurance funds is not new. State unemployment compensation programs are essentially insurance programs. Many states have also established state workers' compensation insurance programs. Some states have other types of state-sponsored insurance programs such as patient compensation funds, health insurance pools and public school insurance programs. And states have traditionally self-insured the liabilities of state agencies through state risk management programs.

## SUMMARY OF CONTENTS

This handbook is intended to assist states that are considering or developing state-sponsored insurance programs for petroleum underground storage tanks. The handbook discusses some of the reasons for considering an UST insurance program, as well as issues involved in determining the feasibility of a program and alternatives for designing and financing the program. Although the handbook's focus is on insurance programs, some of the topics discussed may be relevant to the development of other state assurance programs. The following topics are covered in Chapters II through VI:

Chapter II. looks at current problems with the availability of insurance, compares insurance with alternative financial responsibility mechanisms and discusses the circumstances under which a state might consider establishing a state insurance program.

Chapter III. raises issues to be considered in designing a state insurance program, including participation in the fund, the type and extent of coverage to be offered, and the structure and administration of the program.

Chapter IV. outlines a procedure for analyzing the feasibility and financial needs of a state insurance program, and looks at such financing issues as the options for the initial capitalization of the program, the determination of premium levels and loss reserves, and protection against insolvency.

Chapter V. describes an alternative response to the problem of insurance availability, the creation of a state reinsurance program that would act as a reinsurer to private insurance carriers.

Chapter VI. notes the untested possibility that states could sponsor insurance programs jointly or share administrative functions for their separate programs.

The handbook contains two appendices. The first is a list of definitions for terms used in the handbook. The second is a program checklist. The checklist is intended to remind the state of issues to consider when reviewing proposed legislation or designing a state insurance program.

## II. WHY CONSIDER A STATE INSURANCE PROGRAM?

Insurance is the mechanism property owners have traditionally relied upon to demonstrate their ability to respond to third party claims for property damage and bodily injury. Insurance is well suited to this task because it spreads the risk of loss better than most other financial mechanisms and provides an established method of claims handling. Since insurance premiums are usually based on the degree of risk a tank represents as well as prior loss history, insurance also provides a financial incentive for good tank management while protecting the tank owner or operator from financial devastation if a loss should occur.

As discussed below, the availability of UST pollution liability insurance is currently limited. The lack of insurance can create difficulties for tank owners and operators, particularly in light of the financial responsibility requirements imposed on them by RCRA. The United States General Accounting Office, in a January 1988 report to Congress entitled "SUPERFUND: Insuring Underground Petroleum Tanks" (GAO/RCED-88-39), concluded:

Because of the current state of the tank insurance market, thousands of tank owners will not be able to comply with upcoming financial responsibility requirements by purchasing insurance....Small businesses in both the retail and non-retail motor fuel sector are very likely candidates for non-compliance. Given the limited insurance market, some solutions seem warranted to assist tank owners in meeting financial responsibilities. (page 32)

Although the GAO considered federal responses to the problem, states should consider their own approaches to the situation if conditions within the state warrant state involvement. A state might consider establishing a state-sponsored insurance program for underground storage tanks if it determines that:

- (1) sufficient liability insurance is not available to tank owners and operators within the state;
- (2) alternative financial mechanisms are not proving to be adequate substitutes for insurance; and
- (3) businesses and agencies relying on underground tanks for petroleum storage are so affected by the inadequate supply of insurance that the state's interests are being harmed.

## THE AVAILABILITY OF UST INSURANCE

Pollution liability insurance for petroleum underground storage tanks is expected to become more available over the next few years, but the present

supply is limited. One major commercial carrier, Federated Mutual Insurance Company, insures over 80,000 tanks, but is not seeking to expand its share of the tank insurance market.

Other insurance companies, notably several carriers underwritten through the Pollution Liability Insurance Association, issue tank liability policies. And two risk retention groups, of which PETROMARK is the largest in terms of UST coverage, also insure tanks. But the present capacity of the insurance market to cover tanks is not large.

In some cases, the total number of tanks the company can insure is limited due to capital restrictions. In other cases, policy limits may be below the limits required by EPA and/or the coverage may be available only to limited segments of the market, such as petroleum marketers or automobile dealerships.

The reasons insurers commonly give for leaving or not entering the UST insurance market include: (1) the perceived riskiness of insuring against pollution releases; (2) expanding liability resulting from judicial decisions and environmental laws; (3) the lack of accurate loss information; (4) the unavailability of reinsurance for environmental risks; and (5) the time and investment required to develop expertise in the tank insurance area.

Despite these problems, the number of insurers entering the tank liability insurance market is increasing, primarily as a result of the potential market created by the financial responsibility requirements imposed on tank owners and operators. It may be a number of years, however, before private insurers provide tank owners and operators with all the coverage they need.

## OTHER FINANCIAL MECHANISMS

The new EPA regulations make available to tank owners and operators a variety of noninsurance mechanisms that can be used for demonstrating financial responsibility. One purpose of these alternative mechanisms is to alleviate the burden on tank owners and operators who must contend with the shortage of tank liability insurance.

Some of these mechanisms, particularly self-insurance, are both suitable and available to certain segments of the tank-owning population. But methods other than insurance are not available or affordable to all tank owners and operators, and some methods may be of limited applicability as a substitute for insurance. To better understand the role insurance plays, it is helpful to compare it to the alternative financial mechanisms discussed briefly below.

**Self-Insurance.** A tank owner or operator may self-insure its financial responsibility obligations by meeting one of two financial tests set out in EPA's regulations. Each test requires that the owner or operator have a tangible net worth of at least \$10 million and meet a number of other requirements.

Self-insurance has been used by larger corporate tank owners and operators in the past and is an acceptable mechanism for those who qualify. The large net worth requirement, however, will probably restrict the use of the mechanism to large, financially stable corporations such as major oil companies, large petroleum jobbers, national bus companies or utilities.

**Guarantees.** A firm having a controlling interest in or substantial business relationship with a tank owner or operator may guarantee the owner or operator's obligations. To qualify as a guarantor, the firm must meet the financial test for self-insurance for the number of tanks it agrees to guarantee together with any tanks it self-insures.

How extensively guarantees will be used is not known. Major oil companies may find that providing guarantees to their retailers gives them a market advantage by freeing their retailers from the cost of other financial mechanisms.

On the other hand, major oil companies have so far indicated that they do not want to guarantee their customer's obligations because it would tie up substantial amounts of assets and restrict their operating abilities. But even if major companies do ultimately provide guarantees, this mechanism will not be available to the majority of tank owners and operators.

**Risk Retention Groups.** Risk retention groups are formed and operated by entities facing similar types of risks. Each member's individual risk is transferred to the group in return for payment of a premium calculated to cover the group's expected losses each year. The risk retention group is similar to a mutual insurance company that is owned by its insureds.

The Risk Retention Act of 1986 has eliminated some of the legal barriers to the development of risk retention groups, but practical barriers remain. A risk retention group must invest a considerable sum for organizational costs and legal and actuarial consultants before any policies are issued, and adequate member participation during this early period can be difficult to obtain.

Petroleum Marketers Mutual Insurance Company (PETROMARK) is a risk retention group that has been writing pollution liability coverage for USTs for several months. The Environmental Protection Insurance Company (EPIC) is also beginning to offer coverage.

Risk retention groups may ultimately provide coverage to many groups of tank owners and operators, although their development to date has been slow. The primary drawbacks of this approach are: (1) practical problems with setting up and capitalizing a risk retention group; (2) a number of tank owners and operators may not belong to groups able to form or interested in forming a risk retention group; and (3) risk retention groups may not be large enough to adequately spread the risk of major losses.

**Letter of Credit.** A letter of credit is issued by a bank or other financial institution. It is essentially a guarantee to EPA or the implementing agency that a line of credit will be available to meet the customer's financial

responsibility requirements. If the customer (the tank owner or operator) fails to meet its obligations, EPA or the agency can draw funds from the institution by presenting certain documents specified in the letter.

Letters of credit, considered risky by banks, are quite expensive, costing from \$10,000 to \$25,000 for a \$1 million letter of credit. To the extent they become available, it will be mostly to financially secure tank owners and operators with excellent credit ratings and substantial income and assets. Some lenders have indicated that the risks of foreclosing on environmentally damaged property are curtailing banks' dealings with petroleum storage and retail facilities.

**Surety Bonds.** A surety company may enter into an agreement with a tank owner or operator stating that if the bonded owner or operator fails to perform corrective action or pay third party claims, the surety company will do so. Bonds are normally more expensive than insurance and so far surety companies have shown little or no interest in issuing bonds for tank liabilities.

Like guarantees and letters of credit, surety bonds do not transfer the risk of loss. A surety company that pays a claim may seek recovery from the tank owner or operator. For this reason surety bonds will probably be available, if at all, only to larger, financially strong firms that represent good risks of recovery.

**State Funds.** States may establish funds that can be used by tank owners and operators within the state to demonstrate financial responsibility. These funds may take many forms. Comprehensive funds can be set up to respond to all releases, or the fund may be designed to respond only when the owner or operator is unable or unwilling to respond.

The state fund approach to financial responsibility has many advantages. The funds address the public's concern, expressed in federal legislation, that financial resources be available in every case to respond to underground leaks that threaten public health and the environment.

The primary drawback of state funds as a financial responsibility mechanism is that the funds, if set up like traditional cleanup funds, may seek to recover any monies spent from the tank owner or operator. Owners and operators will still need to purchase insurance if they want to protect themselves from a major loss.

The purpose of this handbook is to assist states in evaluating and designing a type of state financial assurance mechanism that overcomes this drawback: a state-sponsored insurance program. The concept of a state UST insurance program is of more recent origin than the state guarantee fund, which is modeled after a cleanup fund. The rest of this chapter looks at how an insurance program would address the various goals a state might want its UST assurance program to fulfill.

## MEETING STATE GOALS

A state insurance program accomplishes goals similar to those of other UST assurance programs. Because of its unique characteristics, however, it accomplishes some goals better than others. The strong points of an insurance program include its ability to increase compliance with regulatory requirements, protect the environment and the public health from future leaks, and, in certain respects, assist small businesses.

On the minus side, creation of a state insurance program is not an effective way to address existing leaks. And a state UST insurance program will not necessarily make UST insurance available to all tank owners and operators or make it more affordable.

### Increase Regulatory Compliance

When insurance is available, it is the financial assurance mechanism preferred by many tank owners and operators because it provides protection from disastrous losses. By making this mechanism available to a greater number of owners and operators, a state insurance program can increase compliance with the UST financial responsibility requirements.

An UST insurance program can also provide incentives for compliance with the technical standards. A typical requirement for participation in any insurance program is that the tank be in compliance with all applicable federal or state regulations. Premium costs are often adjusted based on tank and equipment specifications and release detection practices, providing an additional financial incentive for good tank management.

### Protect the Environment

An insurance program serves the goal of protecting public health, the environment and the public water supply by providing the funds and administrative support necessary for a prompt response to releases. If insurance is not readily available, an uninsured tank owner or operator may not have the resources to respond to a leak in an adequate and timely manner. A guarantee fund will pay for corrective action, but only after it is apparent that neither the owner/operator nor his insurance company is willing or able to pay for it.

Insurance also provides an incentive for the accurate reporting of releases and suspected releases. A tank owner or operator is unlikely to jeopardize his insurance protection by failing to give notice of a possible claim as required by the insurance program. On the other hand, an uninsured owner or operator may have a financial incentive for concealing a leak he can not pay to correct because he knows the guarantee fund or implementing agency will try to recover cleanup expenses from him.



### **Assist Small Businesses**

A major advantage of a state insurance program is the insurance protection afforded small businesses that participate in the program. The liability costs associated with a serious tank leak could bankrupt a small tank owner or operator. While some tank owners and operators may respond to this threat by taking steps to reduce the likelihood of leaks, others may respond by closing their businesses or failing to report suspected leaks.

Ultimately a mechanism like insurance which "spreads the risk" of catastrophic losses will produce the healthiest environment for small businesses. When commercial UST insurance is not available, state-sponsored insurance is the only assurance mechanism that provides financial protection for small tank owners and operators while promoting financial responsibility.

This does not mean that a state insurance program will automatically be able to assist all small owners and operators. If the program is designed to maintain itself on a self-supporting basis, it may have to set standards for participation or premium levels that some small owners and operators will not be able to meet or afford. However, some of the program options discussed in Chapters III and IV can be used by a state to make its insurance program more available to smaller tank owners and operators.

### **Promote Risk Management**

Any insurance program that sets standards for participation or adjusts premiums by degree of risk should promote risk management. Owners and operators desiring coverage will have an incentive to upgrade their facilities and adopt acceptable tank management practices to qualify for participation.

Owners and operators whose tanks fall into high risk/high premium categories will be rewarded with reduced premiums when they lower their risk. It should be noted, though, that insurance programs in which all owners and operators participate automatically or which are funded through a broad-based mechanism such as a gasoline tax will not provide the same incentives.

Insurance programs can also improve their insureds' tank management practices through risk management education programs and on-site evaluations. Risk management specialists retained by private insurers report that insureds generally cooperate with insurers' risk management efforts and attempt to implement their recommendations.

### **Minimize State Subsidies**

The state may want a financial assurance program that relies as little as possible on state funding. An insurance program that is authorized to set its own underwriting criteria and premium levels is potentially self-supporting.

### Clean Up Pre-Existing Leaks

Insurance programs are not good mechanisms for cleaning up pre-existing leaks. Because the program is likely to be funded in whole or in part by risk-based premiums, exposure to known risks must be minimized if the fund is to operate fairly and remain actuarially sound.

Comparison can be made to private insurance programs that do not cover leaks occurring prior to the policy's retroactive date. Some insurers require tank tests, inventory analysis and/or site assessments to verify that no undiscovered leaks exist before extending coverage to a new insured.

### COMBINING A STATE INSURANCE PROGRAM WITH OTHER STATE FUNDS

A state insurance program provides a mechanism for prompt response to covered releases, while protecting tank owners and operators from catastrophic loss in the event of a release. The major drawbacks of an insurance program are that it cannot, if it is to remain financially viable, provide coverage for pre-existing leaks or for all UST systems, regardless of tank condition. For these reasons, an insurance program works particularly well in conjunction with cleanup funds and loan or grant upgrade programs. Both types of programs are described in the handbook entitled "Financial Assurance Programs: A Handbook for States," prepared by EPA's Office of Underground Storage Tanks.

Cleanup funds address the problem of cleaning up pre-existing leaks when the tank owner or operator will not or cannot undertake corrective action. Once the site is cleaned up and the problem with the tank remedied, the owner or operator may become eligible to insure that tank site through the insurance program. Figure 3.1 in Chapter III provides an example of the way an insurance program and a cleanup fund could work in combination.

Tank upgrade loan or grant programs can be tapped to help pay for tank improvements which may qualify a high risk tank for participation in the insurance program or for lower premiums. Tank upgrade programs can be targeted to meet the needs of smaller businesses in rural or low income areas.

### III. DESIGNING A STATE INSURANCE PROGRAM

#### THE PROGRAM DESIGN PROCESS

In the process of creating a state insurance program, a state will consider a variety of financial, legal and administrative issues. Because no one individual or agency is likely to have expertise in all these areas, a good way to begin the program development process is to assemble an advisory group composed of members representing different interests and areas of expertise.

Members of legislative committees, the regulated community, environmental groups and others can help identify state goals and needs. The state environmental agency will have information about the tank population and the tank-owning community. It will be familiar with the state cleanup standards and have some information on losses.

Based on experience in regulating private insurers, the state insurance department should be able to provide guidance with respect to capital requirements, loss reserves, premium setting and other financial aspects of the program that may be unfamiliar to many. When the state insurance department is not able to participate, private insurance consultants can be retained to assist in these areas.

The program design group's main tasks begin with identifying the state's needs and any legal, economic or political constraints the program may face. The group will then need to review and evaluate available program options. From these it can select a combination of elements to form a program that will serve the needs of the state while recognizing the limitations the state may face. Finally, the group should summarize its recommendations in a useful form, perhaps by drafting legislation, or a report or recommendations to a legislative body.

#### PROGRAM ELEMENTS

For the purposes of this discussion, the term "program elements" is used to describe the "building blocks" a state puts together to develop a viable insurance program. Program elements are variables that can be adjusted to affect the scope, cost and/or structure of the program. For example, the type and degree of participation in the program by tank owners and operators are key variables that affect both scope and cost.

As a general rule, participation can be expanded to increase an insurance program's scope, or restricted to reduce its cost. Expanded participation tends to be politically popular, while restrictions on participation make a program more attractive economically. The concept of a state insurance program as a combination of elements emphasizes the flexibility a state has in tailoring a program to suit its needs.

One way to identify program elements is to think of them as the "answers" to the questions a state confronts as it sets out to design an insurance program:

- \* Who will participate in the program?
- \* What coverage will be provided?
- \* What are the program costs?
- \* How will the program be funded?
- \* Are there any legal impediments to the program?
- \* Who will administer the program and how will the program operate?
- \* How long should the program last?

Program costs and funding will be discussed in Chapter IV. Issues for states to consider when answering the other questions are addressed in this chapter.

## PARTICIPATION

States should consider participation in a state insurance program from two perspectives. First, consider the point of view of tank owners and operators. Must they participate or are they free to self-insure or purchase private market insurance without having to support the program financially? Second, consider the viewpoint of the program. Must the program accept all tank owners and operators or is it free to establish standards for acceptance? The answers to these questions affect both the number of participants in the program and the costs of the program.

### Type of participation

Participation can be mandatory or voluntary. A mandatory program is one in which all tank owners or operators must participate regardless of whether they could obtain financial assurance elsewhere. A voluntary program is one in which owners and operators do not have to apply for coverage if they can demonstrate financial responsibility through another means, such as through self-insurance or through an insurance policy from a private insurer. Of course, even a voluntary program is not entirely voluntary. Owners or operators who cannot obtain financial assurance elsewhere would have to apply for coverage from the fund in order to comply with financial responsibility requirements.

Mandatory participation has the advantage of bringing into the program tank owners and operators representing a range of risks. This creates a good mix of "low risk" and "high risk" tanks. It also provides the largest pool of insureds over which to spread the risk of loss. In addition, a mandatory program provides more participants among whom to spread fixed administrative costs.

Mandatory participation has significant disadvantages. It may be unpopular with tank owners and operators who can self-insure or who, as

preferred risks, qualify for commercial insurance at lower premiums than the state program would charge. It would also be unpopular with private insurers who offer pollution liability insurance. A mandatory program providing complete coverage may exclude those insurers from the state's UST insurance market and discourage private market development.

At the other extreme, states interested in actively encouraging the private insurance market could consider a "last resort" program in which a tank owner or operator may participate in the program only after demonstrating an inability to obtain financial assurance elsewhere. Owners and operators could be required to demonstrate that they cannot obtain other financial assurance at all or that they cannot obtain it at a fair price.

A voluntary program is likely to be the most popular alternative. One drawback to a voluntary program, at least one without strict standards for participation, is that private insurers can be expected to provide insurance to low risk owners and operators, leaving the state program with higher per tank risks shared by fewer participants. Fewer insureds would share both program expenses and potentially high losses. Premiums would likely be high and significant state financial support might be needed.

One approach is to leave participation voluntary and attempt to reduce the risks the program covers through such means as requiring tank testing or computerized inventory analysis prior to extending coverage. Conditions of continued coverage might also include monitoring requirements. These and other standards for participation are discussed below.

### Standards for Participation

A private insurer determines what risks it is willing to cover through a process known as underwriting. The insurer desires to remain solvent, to make a profit and to provide a return to its investors. Meeting these goals is unlikely if the insurer provides insurance to people whose losses will be so great and/or so frequent that the insurer's payments ultimately exceed its income. The underwriting process permits the company to determine what risks the company can realistically handle. In addition, state insurance regulators may restrict how many risks an insurer can assume, based on the company's assets and financial condition.

A state program has somewhat greater flexibility than does a private insurer because it may choose to supplement premiums with other sources of revenue to support its program. But the total cost of the program will still be determined in large part by the nature of the tank population that the program undertakes to insure. Three basic approaches to program participation from an underwriting standpoint are:

- \* No underwriting criteria are used. All tank owners and operators in the state automatically participate in the program. This approach would involve no applications and no evaluation of the risks presented by a particular owner or operator.

- \* All tank owners and operators who can demonstrate that they are in compliance with applicable federal or state technical tank regulations may participate in the program. Compliance (or substantial compliance) is demonstrated by application or sworn statement, possibly supported by copies of tank-related records. Premiums are adjusted to reflect the degree of risk posed by a tank or site.
- \* The owner or operator must qualify for participation based on underwriting criteria which may be stricter than those provided in the technical regulations. Interested owners and operators must apply to the program and may be required to provide extensive information about their tanks, to test their tanks, to have their inventory records analyzed, and/or to undergo a site assessment. Premiums are risk-based and the program may deny coverage for those sites that do not meet its criteria.

**Automatic Participation Program.** In this program, all tank owners and operators are automatically eligible to participate, although they may have to comply with federal or state UST regulations or pay premiums to receive benefits. An advantage of this type of program is that it eliminates much of the administrative expense involved in processing risk-based applications. The state also avoids the political difficulties of refusing participation in a state-sponsored program while at the same time insisting on compliance with financial responsibility requirements.

The primary disadvantage of this approach is that losses can be expected to be much higher and the costs of the program therefore greater than in an underwritten program. Even if sites with existing leaks are somehow excluded (see discussion of existing leaks, beginning at p. 3-7), the cost of extending coverage to other high risk tanks will raise the total program cost considerably.

Premiums for private insurance, cautiously underwritten, tend to be at least \$2,000 a year per site. Yet these payments do not include any dollars for losses caused by old or poorly managed tanks, which are not accepted for coverage. If an automatic participation program is established, higher premiums or significant additional public funding could be needed to support the extra coverage.

**Regulatory Compliance Program.** Owners or operators would have to apply for coverage and affirmatively demonstrate during the application process that they are in compliance with all regulatory standards. In this type of program, the state asks no more of the owner/operator community under the insurance program than it asks under the environmental program. This fact may make the program more acceptable to legislatures than a program that uses state resources but insures only the better risks.

A regulatory compliance program should be less expensive to support than an automatic participation program because many problem tanks will be identified during the application process, before the insurance program assumes liability for their leaks. However, this program is still more expensive than the strictly underwritten program. At least initially, the

program may include older, bare steel tanks, tanks without release detection and other arguably high risk tanks. Leaks would be more frequent and possibly more expensive to clean up.

**Strict Underwriting Program.** The legislation creating this program would authorize the use of underwriting criteria which could be more strict than the technical tank standards set forth in the UST regulations. For example, the program's underwriters could decide that tanks 20 years of age or older present too great a risk for the program to cover. The program would reject the tank owner's application even though regulatory standards might permit use of such tanks.

The strictly underwritten program has several advantages. Since losses should be lower, premiums would be more affordable. The hypothetical example in Figure 4.2 on page 4-6 illustrates how changes in underwriting criteria can significantly affect program cost. If the program is to be self-supporting, this is an important consideration. A program with strict eligibility requirements also provides the best incentive to owners and operators to upgrade and improve their facilities.

This type of program has drawbacks, the biggest being whether such a program is needed at all. The strict underwriting criteria approach is similar to that used by those private insurers currently providing tank coverage. Owners and operators who qualify for state coverage may also qualify for coverage in the private market so that a state program would merely duplicate coverage. On the other hand, the private market may well lack the capacity or desire to cover all the tanks the state would insure with its program. Further, not all private carriers provide for on-site corrective action, which UST owners and operators must have under EPA's financial responsibility regulations. The state program could provide this coverage.

Another difficulty facing a strictly underwritten program may be resistance from some groups of owners or operators whose members would not qualify for state insurance because of the age and condition of their tanks or their monitoring practices. Small tank owners and operators are likely to be over-represented in this group and legislators may be sensitive to their arguments.

## WHAT COSTS ARE COVERED?

A state insurance program can be designed to cover all or any part of an owner's or operator's financial responsibility obligations. It could cover only corrective action, only third party claims, or both. The program could offer first dollar coverage, where the program would pay from the first dollar of loss, or excess coverage (perhaps over \$100,000), where the program has no obligation to pay until claims reach the designated level. These and other coverage issues are discussed below.

### Level of Coverage

From the tank owner or operator's viewpoint, the ideal program would offer the types and amounts of coverage that the owner or operator could not obtain at reasonable cost from private insurers. Initially, for some owners and operators, this would include coverage for both corrective action and third party claims up to \$1 million with a deductible which the insured could afford to pay.

Funding considerations or a desire to encourage the private insurance market might prompt a state to limit the coverage it offers. Since most claims are below \$100,000, the state might choose to provide excess coverage only. On the other hand, if the state wants to ensure that funds are available to cover most claims, it might choose to provide the primary (e.g., \$0 to \$100,000) coverage. The "excess" approach should result in a less expensive program in terms of total program costs than the "primary coverage" approach.

If a state decides to offer excess coverage, private insurers would be needed to provide the primary layer of coverage. Since most losses are under \$100,000, however, the insurers may charge close to the same premium whether covering \$100,000 or \$1 million of liabilities. If the state offers the primary coverage, insurers would be needed to write the excess layer. However, the private insurer may still want control over cleanup in order to minimize loss. These are questions worth discussing with private insurers in the state before proposing either type of legislation. Another question to pose is whether either program would attract private insurers to the state. State fund experience so far provides no clear answer.

### Corrective Action and Third Party Claims

Corrective action costs are incurred in cleaning up a release from an underground storage tank. Third party claims are claims made by third parties (such as the owners and users of local drinking water supplies) for compensation for property damage or bodily injury caused by a petroleum release.

Faced with funding limitations, the state could decide to provide insurance for cleanup costs and leave third party claims to private carriers. The advantage to this approach is that the insurance industry and the state each cover the activity with which it is most familiar. Insurers are in the business of adjusting third party claims while states are used to dealing with environmental cleanup.

A further advantage is that third party claims occur much less frequently than corrective action claims, which may make UST third party coverage more attractive to private insurers. Insurers may be even more willing to provide coverage if the state clearly defines third party claims to exclude cleanup activity.



If a state takes this approach, its program should have sufficient financial resources and staff to permit it to respond to corrective action claims without delay. Private insurers may be reluctant to offer third party coverage if delays in cleanup increase the likelihood of third party damages.

The state must decide whether separating the two types of claims is worthwhile given the size and nature of its program. When corrective action and third party claims are covered by separate mechanisms, the EPA rules require that they each be covered for \$1 million per occurrence. The state should also be aware that cleanup costs are by far the bigger expense for a program and that excluding third party claims may not result in significant cost savings for the program.

### Coverage of Existing Leaks

One factor that will have a major impact on the cost of an insurance program is whether or not currently existing leaks will be covered. While the cleanup of existing sites is a great environmental need, the insurance program may not be the appropriate mechanism to accomplish this goal.

Florida's Early Detection Incentive Program is similar to an insurance program in that it will clean up releases, or reimburse owners and operators for their cleanup of releases, which are reported during a 30-month period ending December 31, 1988. This "amnesty" program does not seek cost recovery from the owners and operators.

Out of the 77,000 above and below ground tanks registered at 27,000 facilities, 4,000 leaking sites were reported as of September, 1988. The program was receiving 150 - 200 claims each month. Cleanup costs were averaging \$250,000, possibly due to environmental factors and the length of time some leaks had continued without detection. Reimbursement claims were averaging \$300,000. Basic arithmetic suggests total claims in excess of \$450 million a year during the amnesty period.

All states cannot compare themselves with Florida, which has a very high water table that may cause cleanups to be more expensive than elsewhere. What the Florida program indicates, however, is that the cleanup of currently existing leaks is a costly endeavor, one which cannot be supported solely by premiums paid by the participants in an insurance program.

Insurance policies available in the private market tend to provide protection only against the risk of future leaks. The policy usually includes a "retroactive date", which is typically the effective date of the owner or operator's first policy with the insurer.

Claims are only covered if they arise from pollution incidents which occur after the retroactive date. The policy will not cover leaks which occurred prior to that date even if the claim is filed later. The insurer may require tank testing, inventory analysis, or some other evidence that the tank is leak-free at the time it agrees to cover the tank, or it may use experts to investigate reported releases and determine the date they began.

Another type of policy seen in the private market provides coverage based on "manifestation of loss". This policy will cover losses that manifest themselves after the effective date of the policy even though the release causing the losses may have occurred previously. The insurer may or may not require tank testing, inventory analysis or other evidence of a sound tank or clean site prior to issuing a policy.

The retroactive date approach should cost the state's insurance program less and result in lower premiums for the tank owner or operator than a "manifestation of loss" approach. From a financial viewpoint the program will also be more stable. Program managers can make financial projections and exercise some control over future losses through their underwriting and risk management programs. The use of a "manifestation" rule, on the other hand, provides more coverage to the tank owner or operator.

Neither of the policies just described provides coverage for leaks that are known to the insured at the time the policy is issued. A state insurance program using either approach to avoid existing leaks will not solve the state's cleanup problems or protect tank owners and operators from liability for old leaks.

State decision-makers should look carefully at their goals and reasons for establishing a state assurance program. If the primary goal is to clean up problem sites, a guarantee or cleanup fund supported by sufficient public funds to perform this expensive task would be an appropriate mechanism. If the program's purpose is to offer tank owners and operators a means of demonstrating financial responsibility with minimal state support, a state sponsored insurance program offering coverage on a retroactive date basis will meet the state's needs.

One alternative mentioned earlier is to establish two programs, an insurance program to provide future protection from tank releases, and a cleanup fund to take care of existing problems. As a condition of coverage, the insurance program could require a tank test, inventory analysis and/or soil tests. If a leak were detected, the applicant would be referred to the environmental agency for the development of a corrective action plan and, if needed, the use of cleanup funds to rehabilitate the site. Once the problem were corrected, the owner or operator would be eligible to reapply to the insurance program assuming he met its other standards for participation. This scenario is outlined in Figure 3.1.

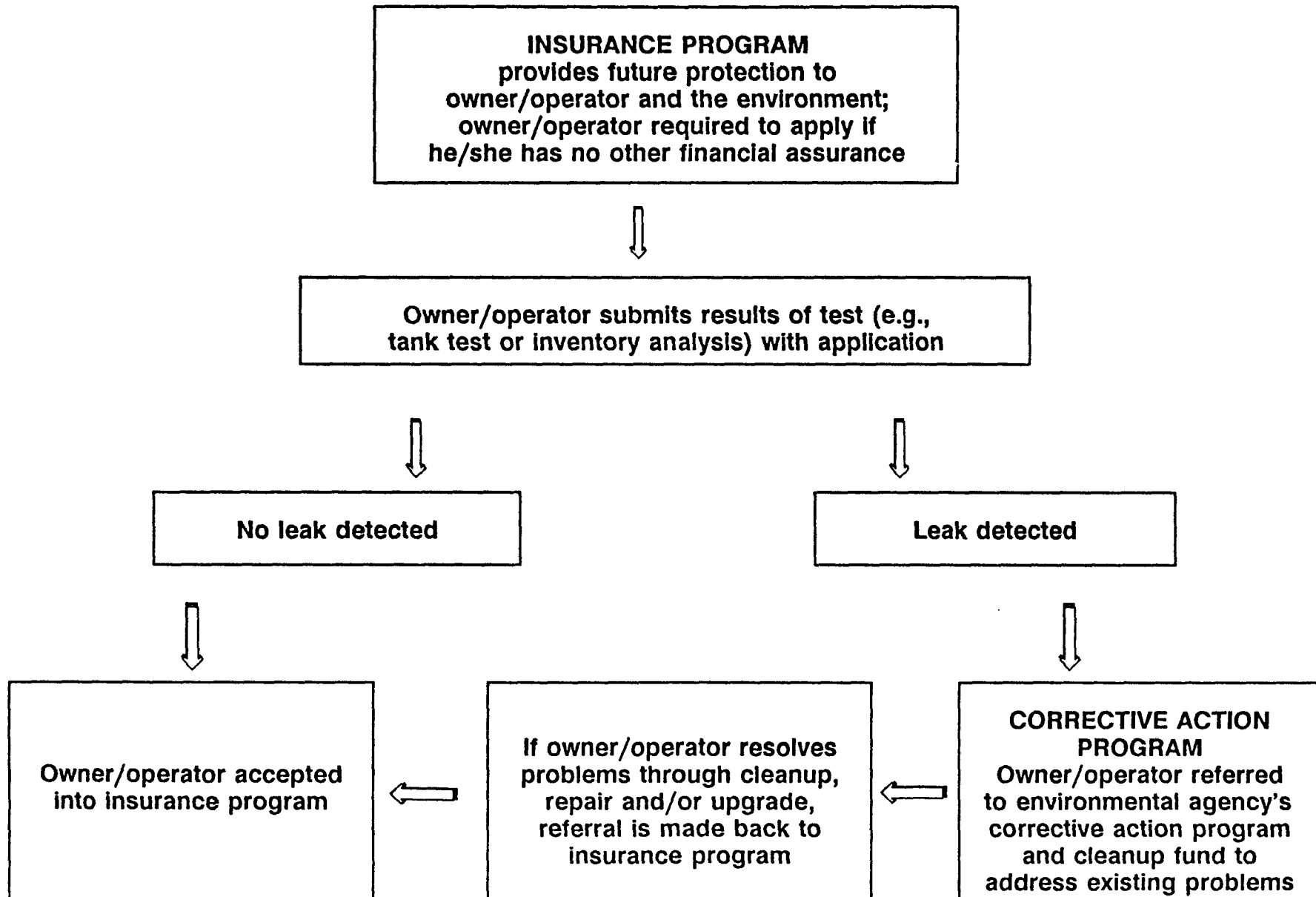
### **Other Coverage Issues**

**On-Site/Off-Site Corrective Action.** The coverage of on-site cleanup has been an issue for private insurance carriers. Some current insurance policies provide coverage only for off-site corrective action, with the insurer having the option to clean up on-site contamination if the release is likely to cause off-site damage.

EPA's financial responsibility regulations require coverage for on-site and off-site corrective action. Some insurers have argued that including

Figure 3.1

**USING AN INSURANCE PROGRAM AND A CLEANUP FUND IN COMBINATION**



on-site cleanup in tank liability policies will cost more than the current policies, because of the increased frequency or severity of claims. A state insurance program will probably want to meet the need for coverage of on-site cleanup but should also consider its cost when estimating funding requirements.

**Aggregate Limits.** Annual aggregate limits place a ceiling on the insurer's liability under a policy regardless of the number of occurrences. EPA has established permissible aggregate limits for tank owners and operators which take into account the number of tanks being insured. Owners or operators of 1 to 100 tanks must have at least \$1 million in annual aggregate coverage while those with 101 or more tanks must have an aggregate of at least \$2 million.

States should consider setting aggregate limits for their insurance programs. The limits would give the program some control over costs, thereby contributing to the financial viability of the program. Assuming the program can afford it, the simplest approach would be to adopt the aggregate limits set by EPA.

**Use of Deductibles.** EPA's financial responsibility regulations require that commercial insurers obligate themselves to provide first-dollar coverage in order for the policy to be used to demonstrate financial responsibility. While the policy may contain a deductible for which the insured is responsible, the insurer must pay the sum even if the insured does not. The insurer may then seek to recover the amount of the deductible from the insured.

A state program may not have to meet the same requirements as a private insurer. But it is a good idea to provide first dollar coverage whenever the program is providing the primary level of coverage. This permits the program to undertake and pay for corrective action immediately and then collect the deductible from the insured.

Deductibles reduce the cost of a program but should not be set higher than the insureds can realistically pay. For the sake of administrative ease, the program could consider omitting deductibles altogether. But using them provides an additional incentive for controlling leaks and spills and may prevent the program from becoming involved in very small releases which the insured can correct himself for less than the cost of his deductible.

**Defense Costs.** Traditionally, pollution liability insurers have provided their insureds with legal counsel and paid litigation expenses when claims are made against the insured. The insurer's payment of these defense costs can be almost as valuable to the insured as coverage of the claim against him, especially where the claim is greater than the policy limits (exposing the insured to personal liability) or the insured's business reputation is at stake.

EPA's financial responsibility regulations require that defense costs be outside the limits of liability set forth in an insurance policy. High defense costs, however, have concerned pollution liability insurers. Prior to promulgation of EPA's rule, carriers had begun to (1) include defense costs

within the limits of the policy or (2) provide a defense outside the policy limits but with a ceiling on the defense costs they will incur.

Should the state program cover defense costs? Providing a defense to the insured permits the program to exercise control over inflated or frivolous claims and is a valuable service to the insured. The cost to the program of providing a defense is an issue, however. A program that provides a defense must budget adequately for the expense and recover it through premiums.

To avoid defense costs, the state could adopt the approach being taken by EPA with respect to standby trust funds. According to the financial responsibility rules, the standby trust fund will pay third party claims presented by signed agreement of the owner or operator and the claimant or reflected in a valid court judgment. The use of this approach by an insurance program may, however, result in the program paying out more for unsupported or inflated claims than it would save by not providing a defense.

If the state insurance program will provide a defense to its insureds, it would be advisable to establish an independent agency or board to run the program. Insureds may perceive a conflict of interest if the environmental agency runs the program. The agency ordering corrective action would then be the same agency that would be expected to defend an insured against unreasonable corrective action requirements.

**Occurrence-Based vs. Claims-Made Coverage.** The state should consider whether to pay claims on an occurrence-based or claims-made basis. This decision may be an important concern to owners and operators deciding whether to join the program or trying to understand what coverage they get for the premium they pay. The state's decision will also affect the length of time the program should maintain reserves.

The tank owner or operator's general liability policy on his business (which is likely to contain a pollution exclusion) is probably "occurrence-based". While terms vary greatly, the policy is likely to cover claims that arise as a result of occurrences which take place during the policy period, regardless of when the claims are made.

Today's pollution liability policies, on the other hand, are written on a "claims-made" basis. Claims made after the policy is cancelled or not renewed are not covered even if the leak commenced during the period of time the policy was in effect. The insured might be able to purchase coverage for claims made on such leaks for a period of time after the policy is terminated but the reporting period is usually short, maybe a year. (This extended reporting period is commonly referred to as a "tail".)

Occurrence-based coverage provides the greatest long-term protection to the owner and operator. However, the state insurance program, to provide that protection, would have to maintain some level of reserves to cover claims from an occurrence in year one for as many as 15 - 20 years. Claims-made coverage does not provide the same long-term protection to the insured, but would permit the program to maintain reserves for a shorter period of time.

The policy provisions specified in EPA's regulations require that a claims-made policy include a six month extended reporting period following termination of the policy. The state insurance program could use this same policy provision. Once release detection requirements are implemented, it is hoped that insured tank owners and operators will be able to discover and report releases within much shorter periods.

## LEGAL CONSIDERATIONS

Early in the planning process, the state's Attorney General or other legal counsel should review the insurance program concept and any proposed legislation. The state's legislative council service and insurance department may also be able to assist in identifying and resolving legal issues.

Knowing the legal constraints imposed by state constitutions or statutes will permit the state to shape its program accordingly. Among the issues that may be relevant are the following:

### Anti-Donation Clauses

An anti-donation clause in the state constitution prohibits public money from being spent for private purposes. It may take the form of a prohibition on guaranteeing private debt, extending the state's credit to or in aid of a private entity, or appropriating funds legislatively to any entity not wholly controlled by the state. Anti-donation clauses generally prohibit the use of state revenues for the private benefit of individuals, corporations, or causes, no matter how benevolent they might be.

If the state insurance program is supported by premiums paid by the policyholders, anti-donation clauses should not be a concern. The insureds are purchasing the policies. However, as is suggested in Chapter IV, one option for funding the program in whole or in part is a gasoline tax. The use of such funds by a state insurance program might violate an anti-donation clause if the gasoline tax proceeds are considered public funds and are seen as providing insurance benefits to private tank owners and operators.

Generally, a state may be able to spend public funds in ways that benefit private persons if a sufficient public purpose is served. However, states subject to an anti-donation clause should look closely at the provision's language and their court's interpretation of the language. The limitations it imposes on the state program can then be determined and the program designed accordingly. Some states may need to select funding mechanisms that do not involve public funds or adopt legislation which clearly states the public purpose served by the program.

If public money cannot be appropriated to fund the program even at the initial capitalization stage, a state might consider raising initial capital for the program through a state loan to be repaid from premiums and other income. Note that, depending on the state, a state loan may also violate the anti-donation clause if a market interest rate is not charged.

### **Limitations on Indebtedness**

A fund may encounter other problems under some states' constitutions, as the constitution may limit the amount or type of debt a state can guarantee. Depending on the language of the constitution, the state may want to include a provision in the authorizing legislation which relieves the state of any liability should the program become insolvent. Such a provision is a good idea in any event. The state would not want to be forced to tap its general revenues to pay insurance program claims.

### **Limitations on Use of Gasoline Taxes**

Statutory or constitutional provisions may limit use of gasoline taxes to specific purposes, such as highway repair. If the state wants to consider the use of such taxes as a means of funding the insurance program in whole or in part, it should consider whether a change in the law is necessary or feasible. It could also decide that some other funding mechanism, such as a fee on tanks rather than a tax on petroleum products, is acceptable.

### **Prohibitions on Raiding Program Funds**

During periods of economic hardship, a legislature might be tempted to raid program funds to cover deficits incurred by other state programs. The insurance fund may look like a good candidate for raiding because it is likely to accumulate what appear to be excess funds, but which are actually funds reserved to pay for incurred claims or set aside as surplus to protect the program from unexpected losses.

A specific dedication of the state insurance fund can reduce the likelihood of raiding. The state should also consider ways to make the legislature understand that the monies reserved are not excess dollars but are genuinely needed to protect the financial integrity of the fund.

### **Constitutional Amendments**

After reviewing the legal constraints on a state-sponsored insurance program, a state may conclude that developing the desired program without amending its constitution is difficult. A few states have adopted constitutional amendments to permit the establishment of state workers' compensation insurance programs. Although state constitutions are not easy to amend, this approach can be taken when the proposed program has widespread support.

### **Applicability of Other State Laws**

Some of the statutes generally applicable to state agencies or to insurance companies may not be appropriate when applied to a state insurance program. To permit the program to function smoothly and to avoid confusion,

the authorizing legislation should specify the extent to which these state laws will apply to the program. Some statutes to consider are listed below.

**Administrative Procedures Act (State APA).** Should the state insurance fund be governed by the state administrative procedures act? If the program issues policies and deals with its insureds on a contractual, free market basis, state APA procedural requirements may be unnecessary and could hinder the functioning of the program.

However, if an "entitlement" type program is created, the state should include certain due process safeguards for persons denied rights to which they may be entitled under the legislation. In this case, the state might want to specify rights of appeal or clarify the appeal process in the legislation.

**Procurement Code.** The state procurement code guides purchasing and contracting by public entities. If most of the money the insurance program will spend is from premiums paid by insureds rather than tax revenues, the public interest may not justify formal procurement procedures. Also, the program needs to be able to hire contractors to perform corrective action on an expedited basis. Legislation could exempt the program from the procurement law or make special provisions for it.

On the other hand, some state oversight of the program's finances should be maintained. An annual audit of the program's financial records by the State Auditor might be adequate.

**Sovereign Immunity.** Will the doctrine of sovereign immunity prevent either an aggrieved tank owner or an injured third party from suing the fund? States have waived sovereign immunity to varying degrees and for varying types of claims; these waivers can be found in the case law or in the state's statutes on tort or contract claims against state entities.

Assuming that the state insurance program issues policies to its participants, the policyholder will be basing any legal claims on the policy. States typically waive sovereign immunity for claims based on written contracts. Their treatment of tort claims, such as where an injured third person sues to recover damages for his injuries, is more varied. To avoid confusion, the insurance program legislation should include any waivers of immunity considered necessary or advisable.

Subtitle I of RCRA provides for direct actions against the provider of financial assurance when a solvent owner or operator cannot be found within the jurisdiction of the state or federal court or when the owner or operator is in bankruptcy. A direct action provision included in the program legislation would clear up uncertainties and bring the state program into compliance with federal requirements.

**Insurance Code.** The state insurance code regulates private insurers doing business in the state. It would be a good idea to clarify which, if any, provisions of the code apply to the insurance program. Do the program's rates and policy forms need to be approved by the Insurance



Commissioner? Should the financial standards imposed on private insurers apply to the state program? Should the policy terms and conditions required by the code be included in the program's policy forms? Can the program be exempted from premium taxes?

A related concern is the extent to which judicially developed insurance law applies to the state program. That law, for example, construes policy language in favor of the insured and against the insurer. In contrast, the courts tend to give deference to agency regulations, which the program could promulgate. The state insurance program may want to take advantage of this deference by setting out its policy terms by regulation instead of using individual policy forms.

**Public Finance Code.** The state public finance code may limit the types of investments which can be made with state funds and who can make them. The state insurance code may regulate the investments made by private insurance carriers. If the state treasurer invests the program's funds, no special provisions will be necessary. But if the program will do its own investing, the state should consider which, if either, set of guidelines should apply to the investment of the program's funds.

## ADMINISTRATIVE CONSIDERATIONS

A state should determine who will govern the insurance program, who will administer the program, and what powers the policy-makers and administrators will have.

### Who Will Govern the Program?

An insurance program may be governed by a state agency or by an independent board. The appointment of an independent board is a commonly used approach in state insurance programs. The board makes executive decisions and sets policy for the program, but does not operate the program on a day to day basis. It is typically appointed by the Governor, sometimes with the advice and consent of the state Senate.

The composition of the board can be specified by statute. For example, the authorizing legislation may provide that the state Insurance Commissioner or his designee and the director of the state's UST program or his designee shall be ex officio members of the board. To provide the program with a balanced perspective, the legislation may also specify the other interests to be reflected in the board's membership.

The board created by the legislation could be empowered to employ a program manager who would in turn be authorized to hire expert staff or to contract out for the financial, underwriting, and claims management services the program needs. Another approach would be to authorize the board to retain one or more firms that contain the full range of expertise required to operate the program.

The insurance program could be run by an existing state agency, although a conflict of interest might arise if the environmental agency were to run the program. The same agency would be setting premium levels while also setting cleanup standards and defending against claims while also ordering cleanup. One alternative would be to create a new state agency devoted to the program. Whether the agency is an existing one or is newly created, it may consider contracting with private firms to actually operate the program.

One state has passed legislation authorizing the creation of a state UST insurance program which would cover third party claims alone and would be funded by premiums charged the participants. The agency responsible for the program is considering contracting with a private insurance carrier which would not only operate the program but issue its own insurance policies and assume the liability for the program. If a carrier agrees to take on the program, the state may have found a way to offer insurance coverage to its owners and operators with minimal state involvement.

### **Powers of the Agency or Board**

The legislation creating the program should give the board or agency enough authority to carry out all functions necessary for the program to succeed. This includes the authority to invest the program's income, contract with administrators, lawyers and others as necessary, pursue subrogation claims against responsible parties, issue and cancel insurance policies, and purchase reinsurance.

If the governing entity is a board, the act should specify the extent to which the board is a state agency and the members of the board and the board staff are state employees. The status of the program can affect employee status and benefits, insurance coverage for program operations, and the applicability of a number of laws governing state agency conduct. When the program contracts with private firms for administrative services, the legal responsibilities and authority of both the governing board and the contractor should be clearly spelled out in the contract.

### **Program Operations**

Once the legislature authorizes a program, the board or agency responsible for setting up and running the program will have to turn its attention to program operations. It will have to decide how to structure and administer the program and whether to hire staff or contractors to perform program tasks.

The idea of setting up an insurance program may sound overwhelming to a state reluctant to increase the complexity and cost of government. It will wonder, for example, whether it will have to commit an entire agency to the program, hire employees, and somehow learn the insurance business from the ground up. The state should keep in mind that it can contract out virtually all of the services involved in setting up and operating the program. This

may be desirable if the needed expertise is more readily available from existing firms than state personnel applicant pools.

Successful design and implementation of the program will require administrative and technical personnel experienced in environmental liability insurance and in management systems for underground storage tanks. The skilled professional disciplines, e.g., underwriting, claims management, engineering, information management, accounting and public communications, could be acquired through one or an assembly of experienced contractors. Developing a contractual relationship with one or more entities that possess this experience and professional skill should enable the state to develop a program effectively and expeditiously.

Figure 4.1 in Chapter IV lists a number of the activities of a state insurance program. These include:

**Information Dissemination/Marketing.** The program should budget time and money for explaining the program to owners and operators in the state. The state should also decide whether the program will use licensed insurance brokers and agents ("producers") to sell the program's policies or whether applications for program coverage will be handled out of a central office.

Producers' commissions would increase the price of the policy and the program would have to devote some effort to educating the producers to ensure that the program is well understood. On the other hand, producers would perform such services as taking the application from the prospective insured and explaining the coverage to him. To the extent the state uses at least a few agents around the state, the program also becomes more accessible to people than a program with a single office. The use of producers is discussed further in Chapter IV, page 4-15.

**Information Management/Data Processing.** The program should consider investing in computer hardware and software capable of managing the information obtained. Underwriting, policy and claims information need to be accessible on a rapid retrieval basis. Not only will the information be needed in the course of program operations but it will be an invaluable database for the state. The loss information obtained over time will assist in tailoring the program and will help private insurers who consider entering the state to write UST liability coverage.

**Accounting/Financial.** This includes basic bookkeeping functions as well as the more sophisticated needs of an insurance program. Loss reserves and a surplus account must be established and maintained; monies must be invested and the income realized to the program.

**Underwriting Management.** The program will determine underwriting criteria, design policies, develop ratings and determine premium levels. Prospective insureds will have to be given quotes and their applications for coverage evaluated. Policies will have to be issued and reviewed. These activities can be highly individualized or the program can develop a standardized application review process. They are critical functions for any program

that is to support itself, especially where actuarially sound data is not available and the insurability of a particular site becomes a matter of judgment.

**Risk Management.** One way an insurance program can control losses is to develop a proactive risk management program. Not only can the program require that participating owners and operators use proper leak detection and tank management practices but it can keep participants informed of current trends in these areas. It can work closely with high risk participants or with participants who have suffered losses to prevent future leaks.

The state insurance program should develop a good working relationship with the state environmental agency regulating underground storage tanks. Since they are both interested in risk management, their respective activities in this area can be designed to complement each other.

**Claims Management.** Claims expenses are usually significant in a pollution liability program. Staff or contract personnel will determine the extent of damage, evaluate and implement corrective action options, monitor and adjust claims payments, and coordinate the activities of corrective action contractors and specialty consultants who may be needed for a specific claim. Claims handling costs may decrease over time as standardized procedures and familiarity with local cleanup requirements develops.

**Legal Services.** The program will need legal advice in the running of the program. If the program agrees to defend its insureds, it will also have to retain attorneys to provide that defense.

A state may develop a variety of procedures to resolve disputes between the insured or a third party claimant and the program. These may range from informal negotiations with claims adjusters to administrative hearings to formal arbitration.

## DURATION OF THE PROGRAM

### Sunset Provisions

As private insurers enter the UST insurance market and offer better coverage or lower premiums, tank owners and operators may begin to leave the state insurance program and obtain coverage from the private carriers. This process may be hastened by a program that requires owners and operators to try to obtain coverage in the private market before applying to the state entity for coverage.

Over time, the state program may end up insuring a small population of tank owners with the highest risk tanks. This will signal the program's success in providing needed coverage in the short run while encouraging the development of the private market.

Legislation creating the state insurance program could prepare for this eventuality by containing a sunset provision providing that the program will end after a number of years and requiring that the legislature reconsider the

program at a given legislative session. Alternatively, the legislation could require a phase-out of the program to begin at a specified time in the future. In this case, provisions should be spelled out for handling the claims and funds which remain at the program's end.

#### Funding Future Claims

Assuming that the program offers claims-made coverage with a six month extended reporting period, the program will have to maintain itself for at least six months after the end of the last policy period to receive claims. In addition, costs associated with reported claims will have to be paid out over a period of time beyond the last extended reporting period.

If the state has a cleanup fund, one approach to closing out the insurance program might be to transfer to the cleanup fund any remaining insurance program funds. The cleanup fund would then be authorized to complete cleanup or pay claims for the program. If the insurance program has excess funds which are not needed to pay claims, it could return those funds to the policyholders.

#### IV. FINANCING THE PROGRAM

An early step in the evaluation of a state insurance program is to determine whether the program will be economically feasible. Over time, the premiums collected, together with other sources of funding, must generate enough income to pay the claims the program has agreed to cover as well as the administrative expenses of the program. At the same time, the premiums assessed should not be so expensive that participation in the program is not a viable alternative for most tank owners and operators.

The process of analyzing a program's feasibility involves gathering information about the tanks to be insured and analyzing the data to determine the program's financial requirements. Additional financial considerations include providing the program with the initial capital it will need, exploring funding options and estimating loss reserves and premium levels for the program.

During the financial analysis process, it will be very helpful for the program design group to have access to an actuary, underwriter or other individual familiar with insurance concepts and terms. The state insurance or risk management departments may be able to provide this assistance. If not, the group might try to obtain the services of an interested insurance consultant.

#### ANALYZING A PROGRAM'S FINANCIAL FEASIBILITY

Before prescribing specific funding levels or mechanisms for a state insurance program, the state should give some thought to the factors that will affect the program's financial requirements. The following four steps outline a process that allows a state to consider the financial implications of different program approaches before deciding on an approach that suits its needs. The four steps are to:

- (1) Identify variables likely to affect program cost.
- (2) Gather information relating to those variables, including information about:
  - a) tank and client population, and
  - b) incidence and cost of expected claims.
- (3) Estimate the funding requirements of the desired type of insurance program.
- (4) Analyze data to determine whether the desired program is economically feasible; adjust program elements and funding mechanisms if necessary.

## Identifying Cost Variables

By developing a list of the variables that are likely to affect the cost of an insurance program, the state can identify the types of information it will need to collect. For example, the level of participation in the program is a factor that will affect its cost.

The state might therefore want to survey a representative sample of tank owners and operators to determine the interest in the program among different types of tank populations. Information about the number of owners and operators currently insured and the cost and availability of private insurance would also give indications as to who would be likely to participate in the program and what cost limitations the program might face.

Some variables which can be expected to affect program cost are:

- \* Participation - how many owners or operators will participate; what classes of owners and/or operators will participate (e.g. major oil companies, independents, nonretail tank owners); are owners and operators likely to participate?
- \* Tank Characteristics - number of tanks, ages and types of tanks owned or operated by those most likely to participate, use of release detection equipment, etc.
- \* Loss Data - incidence of releases and cost of cleanup and third party claims for the types of tanks likely to be covered.
- \* Environmental Characteristics - depth to groundwater, climate and soil characteristics, etc. which affect the likelihood and severity of tank releases.

## Gathering Information

Once the information needs are identified, collection of the information can begin. One of the best sources of tank characteristic information may be the records kept pursuant to the state's regulatory activities. At least since 1986, most states have collected information about the location, type and number of underground storage tanks within the state.

Participation information may be best obtained through a survey of a representative sample of tank owners and operators. Insurance agents and brokers handling the pollution liability business in the state may also know something about the number of insured tanks in their areas.

Some loss information may be available from the state's existing underground storage tank program or other state agency involved in the cleanup of tank releases. Other sources of loss data include studies by EPA, private tank associations and other states. Some private tank insurance underwriters have up-to-date loss information which they may be willing to share on a contract or consultant basis. If using this data, states should

remember that insurers tend to insure the "best" risks. State insurance program loss rates will probably be higher.

Not all the relevant information a state would like to have may be available. Loss data in particular is difficult to obtain. But it should be emphasized that perfect information is not necessary for designing a workable program. As long as the program is provided with an initial source of capital reserves and has the ability to adjust premiums or other sources of income based on experience, it is possible to design a program that can meet its initial obligations and develop into a viable insurance program.

When complete information is not available, a state may have to design a program based on its best judgment. For example, insurance premiums are usually adjusted to reflect the degree of risk posed by the covered tanks. Older, unprotected or unmonitored tanks pose a higher risk than new tanks which meet current technical standards. They should therefore require higher premiums if premiums are based on risk.

But if a state does not have enough data to adequately assess risk based on age and condition of tank, it may scale its premiums based on other factors, such as numbers of insured tanks and deductible levels, until it has enough loss experience to assess premiums based on risk. When a state has obtained what information is available to it, it can begin to assess the program's financial needs and outline the program elements.

### Estimating Funding Requirements

The costs of an insurance program, and therefore its funding requirements, are determined not only by loss rates and cleanup costs, but by the selection of program elements discussed in Chapter III. Once the information described above is collected, the next step is to select an initial program design specifying whether participation is voluntary or mandatory, whether coverage is extended to all applicants meeting minimum criteria or whether strict underwriting criteria must be met, etc.

This information can then be analyzed by an actuary and/or an experienced insurance underwriter to estimate specific program costs. An actuary uses a mathematical analysis to estimate the cost of future claims and necessary premium levels based primarily upon assumptions and information, such as estimates of participation levels, which are provided by the state. Underwriters use the formulas prepared by actuaries and their own risk assessment experience to establish the rates, terms and conditions of insurance to be applied to individual tanks or classes of tanks.

The state insurance department may be able to provide assistance in evaluating the program's financial needs and should be consulted early on in the process of designing a state insurance program. The state's risk



**Figure 4.1****Program Costs and Tasks****Start Up Costs**

- Legal and actuarial services
- Facilities
- Equipment, including computer and software
- Publication costs
- Per diem and mileage for board members or director salaries

**Initial Program Tasks:\***

- Regulation and policy development
- Information dissemination
- Set up computer and information processing/accounting systems
- Underwriting analysis and rate-setting

**Ongoing Program Costs:**Administrative costs:

- Staff and/or contractors
- Per diem and mileage for board members or director salaries
- Legal, actuarial and technical services, as needed
- Facilities
- Supplies
- Printing

Insurance costs:

- Claims paid
- Claims handling and defense costs
- Loss reserve contributions
- Reinsurance, if any
- Producer commissions, if any

**Ongoing Program Tasks:\***

- Information dissemination
- Information management/data processing/accounting
- Risk management activities
- Review of applications, rating, and policy issuance
- Claims management, including claims adjusting and defense
- Supervision and management of corrective action activities
- Policy renewals, processing and cancellations
- On going review of underwriting criteria and rating assumptions

\* NOTE: The list of initial and ongoing program tasks is for information purposes. The legislation creating the insurance program only needs to delegate sufficient authority to a governing entity that it can consider program tasks and hire staff or contractors to perform them.

management agency and its financial arm may also have useful information and insights. The state should seek to develop estimates of:

- \* the level of claims the program can expect over a period of years (some actuaries recommend 5 year projections) for the group of tanks it plans to insure. Claims costs should include claims handling and defense costs. Different estimates based on different underwriting criteria can be developed for comparison purposes;
- \* administrative expenses, including producer commissions, if any;
- \* the amount of initial capitalization the program will require; and
- \* the premiums that will need to be assessed.

According to one tank insurance underwriter, administrative expenses may average about 10-15% of total premium. This figure does not include producer commissions or claims handling expenses attributable to a particular case, the latter of which are considered to be loss expenses. A program's actual expenses as a percentage of premium will vary depending on the size of the program, its complexity and whether services are contracted out or performed by program staff or agency employees. A list of common expenses is included in Figure 4.1.

The legislation creating the program should authorize the program's governing entity to set premiums from year to year. The purpose of trying to estimate in advance what future premiums might look like is to determine (1) whether adjustments can be made to the scope of the program so that it can realistically be expected to support itself; or (2) whether some kind of public funding mechanism should be incorporated, either to provide initial capital, to reduce the premiums charged to policyholders or as protection against insolvency.

### Adjusting Program Elements

In the course of its economic analysis, a state is likely to discover that there is no absolute yes or no answer to the question of whether a state insurance program is economically feasible. Different program options will result in different program costs. The feasibility of an UST insurance program depends on the tradeoffs a state is willing and able to make and the program elements it selects.

Based on its initial analysis, a state may decide that it wants to adjust costs by expanding or restricting participation through the use of underwriting criteria, tank tests or site assessments; adjust income by supplementing premiums with other sources of income; or change coverage levels, deductibles or other program elements to come up with a program that is both financially sound and affordable.

Figure 4.2 is a hypothetical example illustrating the effects of varying underwriting criteria on total program cost. It shows how reductions in the

Figure 4.2

## Effects of Underwriting Criteria on Program Losses: A Hypothetical Example

1. State loss data indicates a past UST system failure rate of 8% (failure rate = total annual releases as a percentage of total number of tanks in the state);
2. A minimal underwriting program is estimated to adjust this rate to 6% for insured tanks;
3. A preferred risk underwriting program yields an estimated rate of 3%;
4. Site assessments or tank tests prior to underwriting and an active risk management program yield an estimated rate of 1% (NOTE: strict underwriting criteria and tank tests or site assessments prior to policy issuance could reduce failure rates well below 1%);
5. The average corrective action claim is estimated to be \$55,000 (including cleanup expenses and third party damages);
6. If policies are issued on a per location basis, the formula for determining the annual cost of claims is:

Number of insured locations X average number of tanks per location X estimated failure rate X \$55,000 = Expected Annual Claims

A state with 5000 insured tank locations averaging 3.5 tanks per site and a 3% failure rate would apply this formula as follows:

$$5000 \times 3.5 \times .03 \times \$55,000 = \$28,875,000^*$$

If the failure rate is reduced to 1%, the cost of claims is also reduced:

$$5000 \times 3.5 \times .01 \times \$55,000 = \$9,625,000$$

However, if no attempt were made to restrict participation the program costs could be much higher:

$$5000 \times 3.5 \times .08 \times \$55,000 = \$77,000,000$$

\* Note: The failure rate is based on the assumption that pre-existing leaks are not covered. If pre-existing leaks are covered by the program, losses would likely be several times higher during the initial years of the program. (See the discussion of existing leaks and retroactive dates in Chapter III, page 3-7). These figures should not be used for actual program cost projections.

incidence of claims can be achieved by increasing the restrictions on which tanks the program will insure. The numbers are estimates. Although they are intended to be representative of the type of claims a state might experience, they should not be used as cost projections for an actual state program.

As used in Figure 4.2, a minimal underwriting program means that bare steel tanks over 20 years old are excluded, but no release detection equipment is required and no environmental analysis is undertaken. The preferred risk underwriting program in the illustration would also require release detection equipment and procedures as a condition of insurance and might identify additional criteria that related to the risk of loss in a particular state (e.g., depth to groundwater).

## SPECIFIC FINANCING CONSIDERATIONS

### Initial Capitalization

From the day an insurance company issues its first policy it should have established reserves to ensure that it can pay both expected and unexpected claims. State insurance laws and regulations require private carriers to maintain reserves in specified minimum amounts. Because loss projections in the tank insurance area are subject to uncertainties, it is particularly important for a state insurance program to accumulate capital reserves through some mechanism specified in the authorizing legislation.

This initial capital can function as the program's surplus, although a state insurance program will probably use some of this money for start-up costs. An insurance program's surplus should be distinguished from loss reserves, which are the funds set aside to pay claims. Surplus is intended to remain unspent unless it is needed to pay for unexpectedly high losses or early claims which develop before adequate loss reserves are accumulated.

The initial capital may come from up-front assessments against the insured tank owner or operator. Risk retention groups often get the initial money they need in this manner. Initial capital could also come from an appropriation, or a loan from the state, or a tax or fee on petroleum products or tanks. A number of possible funding mechanisms are discussed in the following section.

There is no hard and fast rule for determining the amount of initial capital a specific program needs. It depends on the size of the program, the amount of coverage offered, whether the program will be expected to be self-supporting and the degree of protection from insolvency the state wants to provide. States may want to look to their own insurance laws for guidance in determining the amount of initial capital to provide.

For example, most state insurance codes contain surplus to policyholder ratios which prescribe the minimum amounts of surplus a private insurer must have as a function of the largest policy it sells. A typical ratio is ten to one which means that a company issuing a maximum policy of \$1 million must

maintain a surplus of at least \$10 million. Surplus is defined in most state statutes as the difference between total assets and total liabilities. Total liabilities includes loss reserves for both reported and unreported losses.

Another guide could be the premium to surplus ratio. In this case, insurance regulators compare the total premiums being written to the carrier's surplus. The ratio of the two may not exceed that specified in the statute. A state may want to keep these ratios in mind when providing initial capital for the state insurance program.

### **Funding Mechanisms**

A state insurance program will need funds for its surplus, for loss reserves to pay claims and claims handling expenses, and for administrative expenses. Funds can come from a variety of sources, and it is likely that more than one source of funds will be available to a program. Some of the possible sources of funds include:

- (1) legislative appropriations
- (2) assessments
- (3) premiums
- (4) per tank fees
- (5) gasoline fees or taxes
- (6) loans
- (7) state-backed bond issues
- (8) interest
- (9) subrogation recoveries

**Legislative Appropriations.** Legislative appropriations can provide some of the funds a program needs to get started. Legislators may be understandably wary of establishing a program that requires continuing annual appropriations. But one-time appropriations may be more acceptable. One-time appropriations could be used to research the feasibility of a state insurance program, or to provide startup costs and/or initial capital for a newly established program.

**Assessments.** Assessments can be used either to raise initial capital or to "balance the books" in the event the program's losses and expenses exceed income. The latter use is discussed below in the section on protection against insolvency.

Initial capital can be raised by levying an assessment against program participants at the beginning of the program, much like risk retention groups are capitalized. If it is feared that the assessment will keep owners and operators from participating in the program, a per tank assessment could be levied on all tanks regardless of whether the tank owner or operator will choose to participate in the program.

The advantage of raising funds through assessments is that no contributions of public funds are required. The disadvantage is that tank

owners and operators may not be financially able to pay an initial assessment plus the first year's premium in one year. One alternative might be to spread the necessary assessments over a period of years.

**Per Tank Fees.** Per tank fees used to accumulate initial capital are similar to the assessments discussed above. Per tank fees can also be used in lieu of premiums as the primary method of funding the insurance program. The difference between per tank fees and premiums is that per tank fees are usually set by schedule or regulation and don't take individual risk into account.

Because per tank fees are generally levied on all tanks, they are most acceptable in automatic participation programs which include all tank owners or operators. Unless per tank fees are indexed or adjusted to reflect the volume of petroleum products that pass through a tank over time, they fall most heavily on low volume, less profitable tanks such as those serving rural areas.

**Gasoline Fees or Taxes.** Gasoline fees or taxes are an effective way to raise initial capital for an insurance program, because a small per gallon increase in the tax a state already levies can generate large sums of money in a short period of time. Gasoline taxes or fees are also easy to implement because the tax collection mechanisms are already in place.

Gasoline taxes and fees, however, become part of the base price of gasoline and get passed directly on to the consumer. Programs funded primarily by gasoline taxes instead of risk-based premiums provide no incentive to individual tank owners and operators to control tank risks. However, if a state determines that tank owners and operators cannot afford to pay the full cost of a state insurance program, gasoline fees may be used to supplement premiums as a source of program funds.

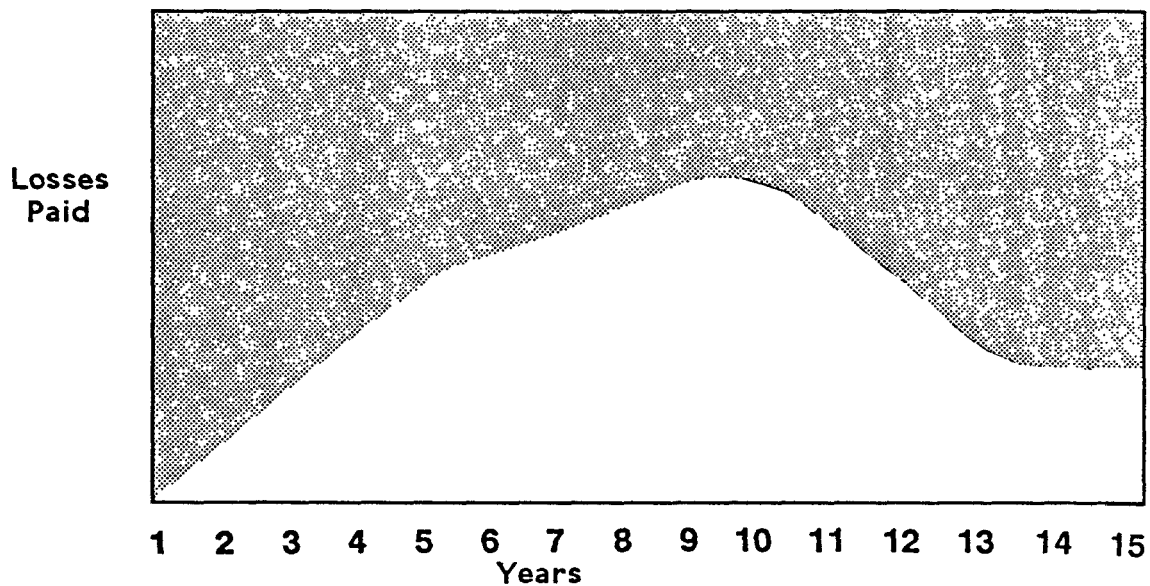
**Loans.** The state may provide initial capital for an insurance program by authorizing a state loan. The advantage of a loan is that there is no "gift" of public funds to a program that will largely benefit private tank owners. There are a number of legal, political and economic reasons why this may be important to a state. The primary disadvantage of using a loan to fund the program is that repayment must come from premiums paid by the insureds which will increase the cost of insurance benefits to the tank owners and operators.

Figure 4.3 shows how the level of loss expenses a program must pay is likely to rise for 5 - 10 years and then drop off somewhat as tanks are upgraded and existing leaks discovered and cleaned up. Some extra premium might be assessed during low-loss years to repay a loan or to build extra reserves to minimize premium increases during high loss periods. The term losses as used in Figure 4.3 means the actual sums of money the program pays out in response to the claims it receives.

**Premiums.** Premiums are the "purchase price" which an insured must pay to buy insurance coverage. The notable feature of premiums as a source of program income is that premiums are usually risk-based. This means that

Figure 4.3

Possible variations in the level of losses paid over time



The graph illustrates the relative loss rate which a program might expect over time. Losses would be low during the early years of the program but would rise rapidly as leak detection and tank upgrade requirements result in more releases being discovered. Loss levels may decline again after tank upgrade activities are completed.

the amount a tank owner or operator pays for insurance coverage is adjusted to reflect the likelihood that the insured tanks will leak and the relative cost of remedying the damage if the tanks do leak.

Premiums are likely to be the primary source of income in all insurance programs except, perhaps, certain automatic entitlement programs which may be supported primarily through taxes or fees. Premiums can be adjusted each policy period to reflect the current cost of the program.

**State-Backed Bond Issues.** States often issue bonds to raise capital for various government projects. At least one state is presently considering the use of a state-backed bond issue to raise funds for a state UST fund. State laws governing bond issues should be checked to make sure bonds can legally be issued for such purposes as an UST insurance program.

**Interest.** It is likely that premiums collected during the initial years of the program will exceed the amount the program actually pays to respond to claims during that period (assuming existing leaks are not covered). The legislation creating the program should provide that any interest earned on program funds belongs to the program. This interest will help to moderate premium costs in subsequent years as claims activity increases.

**Subrogation Recoveries.** When a private insurer pays claims on behalf of its insured, it becomes "subrogated" to any rights of recovery the insured may have had. This means that if the insured's loss was caused by a negligent third party, the insurer may seek recovery of its loss directly from the third party to the same extent as the insured could have.

In the tank insurance area, for example, an insurer may pay to clean up gasoline which leaked from an underground pipe connection. During the course of its investigation, the insurer may determine that the tank installer improperly installed the tank piping. It may demand that the installer reimburse it for the cleanup costs and sue, if necessary, to enforce its claim.

Subrogation will not be available in all cases. Many releases will not be due to anyone's negligence, or will be solely the fault of the insured. In any event, subrogation recoveries are usually not large. But subrogation, along with interest, can provide modest sources of supplemental income which can help to reduce premium levels.

### **Public vs. Private Funding**

At some point, the state will need to decide whether or not to incorporate some element of public funding in its insurance program. Public funding, for the purposes of this discussion, means any funding obtained from sources other than the program's insureds. It may include gasoline fees, taxes, appropriations or across-the-board tank fees assessed against tank owners who may not be participating in the insurance program.

The primary reason for incorporating some element of public funding would probably be economic. If the premiums for a self-supporting or



privately funded program were considered to be too expensive for tank owning businesses to fully assume without significant hardship, a state might feel justified in subsidizing the insurance program in some manner. Such might be the case if pre-existing leaks were to be covered. States with small tank populations may also find that they don't have enough insureds to adequately spread the risk of loss without some state support.

Economic considerations are also among the reasons for not using public funds. Economists generally agree that the best economic decisions are made when all the costs of an activity are "internalized" or paid by the entity incurring them. If insurance premiums are high because too many risky tanks are covered, a state may be better off in the long run by requiring that these tanks be closed or upgraded than by subsidizing their insurance costs.

Insurance costs are likely to fall hardest on small businesses such as rural retailers that provide a service to their communities, but are only marginally profitable. A state should be aware that it can target these tanks for assistance through loan or grant upgrade programs or reduced premiums, without necessarily subsidizing the whole insurance program.

States which want a self-supporting program, but realize that high risk tanks within the state may raise average premiums to unacceptable levels might consider a two-tier program with two separate funding pools. Tanks which meet minimum underwriting criteria would participate in a self-supporting insurance program.

Tanks which are ineligible to participate because of condition or location on a contaminated site would pay higher premiums to participate in the high-risk pool. This pool could be subsidized with other sources of income, but would last for only a few years while tanks are upgraded and sites cleaned up.

### **Loss Reserves and Premium Levels**

**Loss Reserves.** Loss reserves are the funds an insurer must set aside to pay claims. There are two types of reserves: case reserves and IBNR. Case reserves are reserves set aside for known or reported claims. When a loss is first reported, an insurer will set aside a predetermined amount - perhaps \$30,000 - as the initial reserve for that case.

Once a claims adjuster has investigated the release, the case reserve will be increased or reduced to reflect the adjuster's best estimate of what the total cost of the claim will be. Further adjustments can be made as the handling of the claim proceeds. Case reserves include cleanup costs, claims handling costs and expected third party claims if covered by the program.

IBNR stands for Incurred But Not Reported. IBNR reserves are set aside to cover the losses which will result from releases that have occurred during the policy period, but which have not been discovered or reported yet. Although unreported, IBNR represents real costs. It is very important

to collect enough premiums during each policy period to cover all the claims that will result from that period of coverage.

If IBNR reserves are not collected and set aside each period, losses and premium costs will increase so rapidly in subsequent years that insureds will be forced to leave the program. The insurance program will then be left with lots of claims costs to pay and no premiums coming in or reserves set aside to cover them.

IBNR reserves are often not large when claims-made policies are used. Instead, the premium costs increase each year to cover the new claims the company expects to receive that result from tank releases occurring during previous policy periods. But if the state program intends to cover the same insureds for a number of years, it can create a more stable program with smaller annual premium increases by setting aside adequate reserves from the beginning.

**Premium Levels.** The total premiums collected each year, together with any other sources of income the program may have, should cover claims paid, claims adjustment and defense costs, administrative expenses plus the establishment of actuarially sound levels of reserves. Figure 4.4 illustrates the components of the premium and their relative proportions in a hypothetical state insurance program. Claims adjustment expenses are included in both the claims paid and case reserves/IBNR components.

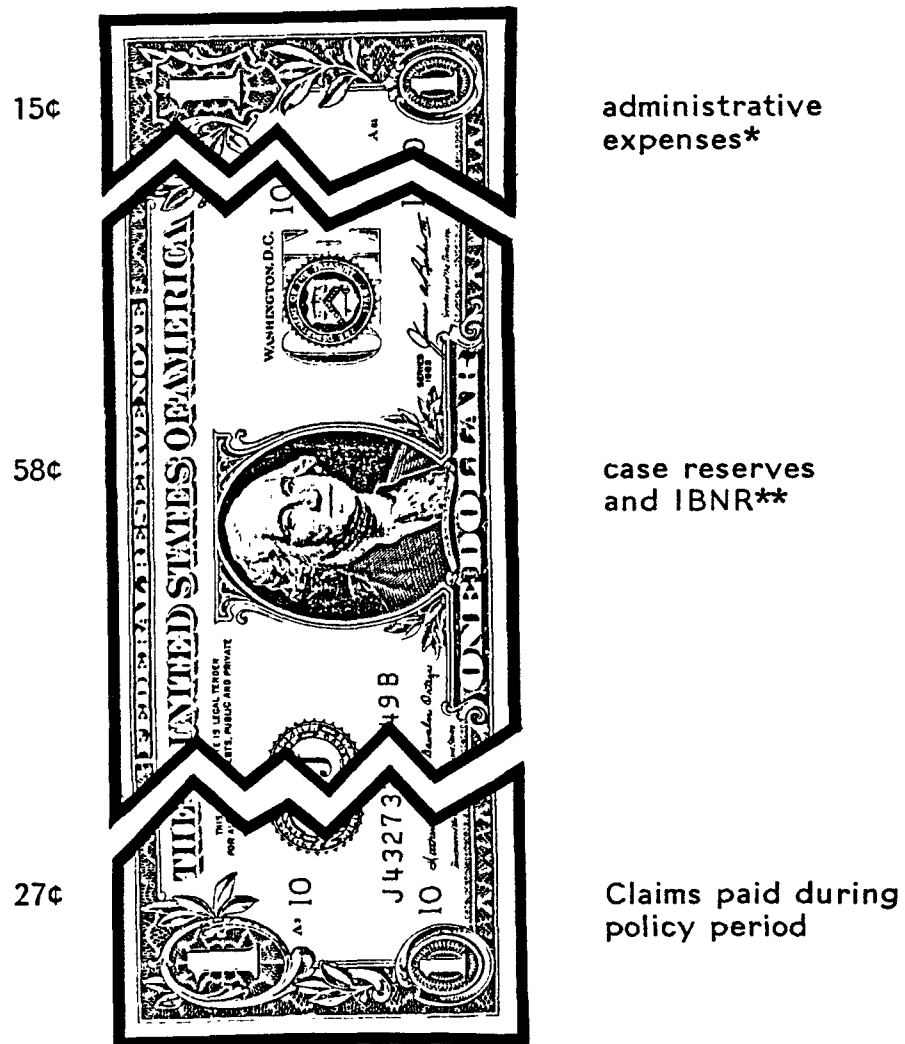
Because so much of the premium goes to pay claims and loss related expenses, premium levels are primarily determined by the amount of risk a program undertakes to insure. Risk, and therefore premium levels, can be reduced by:

- \* using underwriting criteria to exclude tanks which pose the greatest risks from participation in the program until they are upgraded or comply with program requirements;
- \* imposing conditions of insurance, such as release detection requirements, on insureds as a conditions of continued participation in the program; and
- \* developing risk management programs to educate insureds about proper tank management and to provide ongoing evaluation of insured facilities.

Specific formulas for determining premium levels can't be prescribed for all states, because the choice of program elements, program size and local factors such as soil and climate conditions and the cost of labor will all affect program costs and premium levels. As a general guideline, one tank insurance underwriter advised that any annual premium below \$1000 for a three tank site would probably be too low, at least until better loss data becomes available. Premiums now charged by private insurers tend to be higher than this.

Figure 4.4

## How the Premium Dollar is Spent\*



This figure illustrates the relative proportions of different program costs during the initial years of the program. Actual program expenses will vary depending on program design, and the proportion of case reserves to losses paid will change over time.

\* Assumes no commissions paid.

\*\* "IBNR" means losses which are incurred but not reported (See discussion of IBNR under "Loss Reserves and Premium Levels" page 4-12).

**Variable or Risk-Based Premiums.** No insurance company charges every applicant the same price for coverage. Every application is evaluated to determine the degree of risk the applicant represents and the premiums are priced accordingly. States typically assess uniform fees for most governmental services to avoid discriminating against any group. But it is important for states to consider pricing their tank coverage like a private insurer would to avoid adverse selection problems.

An insurance program will want to maintain a proper mix of "good" risks and "poor" risks. A fixed rate premium will result in overcharges to good risks and undercharges to poor risks. Such a rate structure discourages the good risks from participating while encouraging poor risks. As cheaper insurance becomes available to the good risks, they will leave the program resulting in higher per tank losses spread over fewer insureds. An insurance underwriter can be retained by the program to help identify risk factors and to establish premium rates based on risk.

**Deductibles and Producer Commissions.** Other factors which might affect premium levels are deductibles and producer commissions. High deductibles, in the \$25,000 range, significantly cut program costs. However, the program should not establish deductible levels that insureds cannot realistically pay. For smaller tank owners, this figure may be under \$1000. One recommendation is to set deductibles at the "ouch" level - high enough that the insured has a strong incentive to avoid a claim, but low enough to expect that the deductible will be paid.

EPA's proposed financial responsibility regulations contain a "first dollar" requirement which requires UST insurers to pay claims starting from the first dollar spent when the insured does not do so in a timely manner. Insurers may then recover the deductible from the insured. Many private insurers routinely pay claims in this manner.

Producer commissions are paid when the insurance program uses insurance agents to sell its policies. If a state establishes a mandatory program or expects little competition from other carriers, it may be less expensive to have tank owners and operators apply to a central office. But when the state program is voluntary and will compete with private insurers, it may be worthwhile to pay the usual commissions and let licensed agents seek out the tanks to be insured.

### **Reinsurance and Other Protection Against Insolvency**

Once a state insurance program issues policies and begins to insure tanks, it is important for a number of reasons to keep the program solvent. First, if a program's expenses exceed its income, the program is likely to respond by slowing down the payment of claims. But when cleanup activities are not undertaken promptly, the ultimate cost of corrective action usually increases dramatically, placing an even greater burden on the program.

Delays also harm the policyholders who have relied on the program's representations of coverage. Another effect of the financial failure of a state

insurance program might be to further intimidate private insurers who are already reluctant to enter the tank insurance market.

When losses can be accurately predicted, insolvency can be avoided by setting premiums at appropriate levels. But underground storage tank loss data is not as well developed as the loss data for more common types of insurance. States may therefore want to consider some other ways of protecting the program from insolvency during its initial years.

**Reinsurance.** One way to protect the insurance fund from unexpected losses is to obtain reinsurance. Reinsurance is essentially insurance for insurance carriers. If purchased by a state insurance program, the reinsurer would agree to assume some portion of the risk undertaken by the state program.

There are several types of reinsurance. The type most likely to be of interest to state programs is "aggregate excess" reinsurance under which the reinsurer pays any claims the insurance program might become obligated to pay which exceed a specified aggregate. The aggregate specified would normally not be less than the total claims the program expects to incur during the policy period. The reinsurance protects the fund in the event that losses are unexpectedly high.

By combining reinsurance with adequate loss reserves, an insurance fund can do much to ensure its continued solvency. But it should be noted that most reinsurers are currently unwilling to reinsure pollution liability coverages. This is one of the factors contributing to the lack of adequate tank insurance in the private market. If the state cannot locate a willing reinsurer, there are other ways of protecting the fund from insolvency.

**Assessments.** The type of assessments used to prevent insolvency are additional charges assessed during the policy period which policyholders can be required to pay over and above their usual premiums. The legislation creating the insurance program may authorize its governing body to make assessments against the policyholders in the event that a deficit appears likely or that capital reserves have been seriously depleted.

Assessments are not popular and may drive tank owners and operators out of the program unless participation is mandatory. Because they are usually pro rata, not risk-based, they also result in the better risk tanks subsidizing the poor risks. But they can keep a program self-supporting should costs exceed expectations, and for legal or political reasons this may be a necessary program feature in some states.

**Reinstate Initial Funding Mechanism.** If the program received initial funding from a gasoline tax, per tank fee or other mechanism, this mechanism can be reinstated should the claims against the fund exceed its assets. Permitting periodic subsidies may not encourage the program to become self-supporting, but it may be appropriate if the program has nonexclusive participation policies (it accepts all or almost all risks) and the cost to tank owners and operators of a strictly self-supporting program will become unacceptably high.

**Participate in State Guaranty Fund.** Most states require private insurers to make contributions to a guaranty fund that protects resident policyholders in the event that an insurer becomes insolvent. By legislation, the state could make the state insurance program a participant in the guaranty fund.

Private insurers may well object to the participation of the state program, however, in the belief that inclusion of the program will raise all participants' contribution costs, either because pollution liability coverages are higher risk than other property risks, or because state programs may not be as discriminating in who they insure as private carriers.

## PUTTING THE PROGRAM ELEMENTS TOGETHER

The key issue in designing an effective and affordable insurance program is recognizing the inevitable conflict between participation and coverage on one hand and the cost of the program on the other. Some state interests will undoubtedly be served by extending broad coverage to the widest number of participants, while other state interests will be served by trimming the cost of the program.

When a state determines that its ideal program (in terms of participation and coverage) is too expensive, it has the option of increasing the program's sources of income, cutting costs or both. If premiums have been set as high as practicable, increasing income usually means supplementing premiums with some type of public funding (fees, gasoline taxes, appropriations).

Costs can be cut by reducing coverage (lower policy limits, higher deductibles, use of retroactive dates) or by restricting participation (through stricter underwriting criteria, tank tests, site assessments). Other measures such as risk management education and site evaluation programs can effectively reduce costs over time, but will probably not have much impact on claims rates in the short term.

An effective program design will provide some source of initial capital for the program and will specify the continuing sources of program income which may include premiums, interest, subrogation recoveries, and any sources of public funding. The legislation creating the program can either set out the program elements which have been selected, or may specifically empower the program's governing body to fashion a suitable program following the guidelines established by the legislature.

## V. THE STATE AS REINSURER

Chapters III and IV describe a state insurance program in which the program provides insurance directly to owners and operators. This chapter will describe a state reinsurance program, in which the state reinsures the private carriers who agree to provide insurance to the tank owners and operators in the state. Instead of paying claims on behalf of the tank owner or operator, a state reinsurance program would make its payments to the insurance carrier.

A private insurance carrier that provides insurance directly to insureds tries to purchase reinsurance as a means of spreading the risk it has assumed and protecting itself from large claims. The primary, or ceding, insurer continues to handle the underwriting and to work with the insureds to issue policies, handle claims and undertake risk management activities. The primary insurer also remains responsible for meeting the terms and conditions of its insurance contracts with the insureds, including the payment of claims covered by the policy. Under the terms of the reinsurance agreement, however, the reinsurer may pay the primary carrier some portion of the losses it has incurred.

The state could provide reinsurance to a single private insurer, whom the state selects through a competitive bidding process, or to all interested insurers who write UST coverage in the state and who meet the reinsurance program's standards. There are several ways a state could reinsure private carriers, including the following:

A reinsurance program could share the primary insurer's losses using a "quota-share" structure in which the primary carrier and the reinsurance program each pay a percentage share of any given loss. If their shares are 20% and 80% respectively, the primary carrier paying a \$40,000 claim will expect the reinsurance program to pay it \$35,000. In this case, the reinsurance program is involved in every loss.

Another approach is to use an "excess of loss" structure in which the primary insurer retains a specified primary limit of liability and the reinsurance program only responds when that limit is exceeded. If the primary insurer's retention were \$250,000 on a \$1 million policy and the loss under the policy is \$40,000, that insurer would pay the full sum and the reinsurance program would not be affected. On a loss of \$700,000, however, the primary insurer would pay the claim but then recover \$450,000 from the reinsurance program. Under this approach, the state would become involved in some, but not all, claims.

A third approach, described at page 4-16 of Chapter IV, is an "aggregate excess" structure. Under this program, the state reinsurer would pay the primary insurer when that insurer's cumulative losses over a stated period of time, usually a year, exceed a specified amount. A state offering this type of reinsurance would only become financially involved in the program during those policy periods when the primary carrier experienced losses in excess of the agreed upon aggregate.

Of the three approaches described above, the "excess of loss" structure has advantages:

- \* The private carrier would administer the frequent, low loss claims, limiting the involvement of the state program to the more serious claims.
- \* If the carrier's level of retention is higher than the cost of most claims, the private carrier should be diligent in its risk management program and in claims administration in order to contain its costs. This effort to contain costs could benefit the reinsurance program by not letting small claims develop into large claims that would require state program payouts.
- \* Further incentive to conduct effective risk management and efficient claims administration is provided to the primary insurer when the reinsurance program charges premiums for reinsurance coverage. If losses begin to reach into the reinsured layer of coverage, the program may have to increase its premium charges to the insurer, which in turn would have to take those reinsurance premiums from the premiums it collects from its insureds.

The reinsurance program would probably be supported largely by premiums charged to the primary carrier. In essence, for every dollar in premium the carrier collects from the owner or operator, a certain percentage would go to the reinsurance program to reflect the program's share of the risk. The carrier would retain the remainder of the premium to cover its share of the risk and its administrative expenses.

The state could also consider funding the reinsurance program through other means. For example, it could decide to reinsure any losses over a certain amount and fund the program with a gasoline fee or tax or a per tank fee in lieu of or in addition to premiums charged the primary carrier. An insurance carrier would have an incentive to provide insurance in the state because it could get free or low cost reinsurance for its excess liability.

Whether program income derives from premiums or from taxes and fees, or both, the state reinsurance program should maintain a surplus reserve to pay unexpectedly high losses. The monies in this surplus account and related investment income would be used to discharge the program's liabilities under its reinsurance contracts if losses and related expenses exceed income.

The legislature might consider several options for raising this surplus, such as :

- \* a one-time tax or fee on gasoline or a per tank fee;
- \* a percentage surcharge on the premiums the reinsurance program is charging the primary carrier; or
- \* providing by legislation that the state program can borrow money from the state if it suffers a deficiency.



Many of the program design issues discussed in Chapter III apply to a reinsurance program. The state will have to decide what terms and conditions are acceptable before its reinsurance program contracts with one or more private carriers. Questions to ask include the following:

- \* To which tank owners and operators must the primary carrier offer coverage and what conditions on participation may it be allowed to impose?
- \* What levels of coverage should the primary carrier (and reinsurance program) provide?
- \* What type of coverage, in terms of claims-made vs. occurrence policies, extended reporting periods and the like, should the carrier offer the tank owner or operator?
- \* Which type of reinsurance should the state offer, and what is it likely to cost?

With respect to these coverage issues, the state will have to consider the financial responsibility requirements owners and operators must meet, and the extent to which the fund can support the cost of various levels and types of coverage.

A reinsurance program frees the state from the complexities of underwriting and claims management and permits it to work with a single entity or group of entities rather than hundreds of owners and operators. However, it does not free the state from the need for actuarial analysis and program supervision. The state will have to determine the financial needs of the reinsurance program so that it knows what premiums to charge and/or what funds to raise. It will also want to review and approve the policy forms, rates for coverage and expense allowances used by the primary carrier.

The state program bears the risk of sustaining significant financial losses if the reinsured carrier fails to provide proper underwriting and claims administration. Thorough investigation and careful selection of primary carriers by the reinsurance program are essential. The state program should also have the right to audit the reinsured carrier's underwriting and claims procedures to assure that claims are being administered in a manner that protects the state's interests and contributes to the viability of the program.

If the state is not sure what program will work or what will attract private insurers, it can issue an open-ended request for proposals. Notice of the request could be given to insurance journals, magazines and associations for wide distribution and several months allowed for responses to give private carriers time to do some original planning for their proposals. Information provided to the interested carriers should include all known information on the number and types of tanks in the state, climate, hydrology and geology of the state and any specifications the insurer will be required to meet.

The carriers' responses may assist the state in designing a realistic program. To attract carriers to the state and to obtain their full cooperation, the program legislation or request for proposals should provide for protection of the confidentiality of the carrier's financial data.

In general, the advantages of a state reinsurance program are that:

- \* it attracts private carriers who are willing to write UST insurance in the state, but whose ability to do so has been limited by the difficulty of obtaining reinsurance for pollution coverages in the current private market;
- \* it demonstrates a partnership relationship between the public and private sectors in meeting the demand for pollution liability insurance;
- \* it could provide valuable information to the state and to the insurance industry on underground tank losses within the state and on what constitutes fair premium charges for those claims reported;
- \* the administrative costs of a reinsurance program should be significantly less than those of a direct insurance program and the state's role in providing insurance is minimized. This is because the reinsurance program deals with one or a few carriers rather than hundreds of owners and operators and it does not adjust claims or handle risk management activities.

The critical question, however, is whether the program will in fact make insurance more available to owners and operators. This is critical because the main drawback to a state reinsurance program is that it alone does not constitute a state assurance program. The reinsurance program is only worthwhile if it will cause private insurers to provide the state's tank owners and operators with the insurance they need to meet financial responsibility requirements.

## VI. MULTI-STATE PROGRAMS

States with a small number of underground storage tanks within their boundaries may decide that the administrative expenses involved in establishing and operating an insurance program are too great. Similarly, states that want to provide initial capital their insurance programs by assessing participating tank owners and operators may decide that the assessments would be too high given the number of likely participants. These states might consider joining together with similarly situated states and operating regional insurance programs.

Caution must be exercised by the member states in ascertaining that the insurance programs and requirements authorized by their respective legislative acts are in fact compatible. One difficulty is that the states may have different technical tank standards, which could affect the risks to be covered by the program. However, the states can address this problem by permitting the program to establish underwriting criteria different from, but at least as strict as, the technical standards found in the states' environmental regulations.

Most interstate compacts are made through legislation adopted by the member states. The compact or agreement would form a binding contract that limits the exercise of authority of the member states and their citizens for as long as the agreement exists. Once created, the interstate agency would become a single agency of government for its member states.

Article I Section 10 of the United States Constitution (the Compact Clause) requires the consent of Congress to validate interstate compacts. However, the Compact Clause does not affect every possible interstate agreement using the terms "compact" or "agreement." Congressional consent is required when the compact tends to increase the political power or influence of the states affected and encroaches upon the full and free exercise of federal authority. In the case of a bi-state or multi-state entity created for the sole purpose of providing insurance coverage for underground storage tanks, it is arguable that congressional consent is not required.

While interstate agreements and regional authorities are common in such areas as water resource management and transportation, they are not evident in the insurance area. States may decide that the task of getting two or more states to agree on all the design and administrative details of an insurance program is too large an undertaking.

One alternative to a multi-state program would be the joint administration of separate programs. A state legislature could authorize its program to join with similar states to contract for the joint performance of common administrative functions. The result would be that the states could jointly hire an insurance management firm to run their programs, resulting in possible cost savings to the individual state programs.

## VII. CONCLUSION

Now that EPA's final UST regulations are in force, states may be considering ways to help their tank owners and operators comply with the financial responsibility requirements. A state-sponsored insurance program is one option a state might explore if it finds that adequate tank liability insurance is not available from the private insurance market.

A state UST insurance program not only helps owners and operators meet their financial responsibility requirements, it also provides a mechanism for efficient responses to tank releases and creates added incentives to encourage tank owners and operators to maintain good tank management practices. Moreover, a state-sponsored insurance program provides valuable financial protection to some of the tank owners and operators who have been unable to purchase UST insurance.

Creating an appropriate insurance program is not an easy task, but with the cooperation of interested state agencies and individuals, a workable proposal can probably be developed within the constraints the state may face. Although the program design phase is labor-intensive and involves some hard choices, once the authorizing legislation is enacted and the program's governing body appointed, a state insurance program can operate, if so designed, with minimal state support and involvement.

We recognize, and we hope the states recognize, that this handbook does not offer the definitive approach to state-sponsored insurance programs. We do hope it provides some guidance to those states that are evaluating the concept of a state insurance program or that have already begun the program development process.

## APPENDIX A

### DEFINITIONS

#### Cede

To cede is to transfer to a reinsurer all or part of an insurer's liability.

#### Cleanup Fund

A cleanup fund is designed to clean up existing petroleum releases from underground storage tanks when no responsible party is available, willing or able to do so. A cleanup fund provides a source of money to cover corrective action costs, but not third party claims. As the term is used in this handbook, a cleanup fund does not provide insurance-type protection to tank owners and operators. When it pays corrective action costs, it seeks to recover those costs from the owner or operator.

#### Deductible

A deductible is that portion of an insured loss which the insured is responsible for paying. If the insurer provides "first dollar" coverage the insurer is agreeing to pay the costs attributed to the deductible if the insured is unable or unwilling to pay them. It is then the responsibility of the insurer to recover the sum paid from the insured.

#### Financial Assurance Mechanisms

Financial assurance mechanisms, sometimes simply called financial mechanisms, are the financial instruments that are available to UST owners or operators to demonstrate financial responsibility. They include state funds, guarantees, letters of credit, surety bonds, self-insurance, and insurance or risk retention group coverage.

#### Guarantee Fund

A guarantee fund is a state fund which guarantees that a portion or all of the losses incurred by owners and operators for petroleum releases will be paid by the fund if the owner or operator does not pay them. Guarantee funds can cover both corrective action and third party claims. Generally, the fund will seek recovery of the costs it has paid. The primary distinction between a cleanup fund and a guarantee fund is that the latter is established to meet financial responsibility requirements and is financed to assure that corrective action and/or third party claims will be paid if the owner or operator does not pay them.

## **Initial Capital**

Initial capital is the amount of money set aside, ideally before a state insurance program begins operations, for start-up costs and/or to provide a minimum surplus for the program. Some possible sources of a program's initial capital include legislative appropriations, fees or taxes, assessments against tank owners, loans or excess premium charges.

## **Insurance**

Insurance is a device for reducing individual risk by transferring the risks of numerous entities (the insureds) to an insurer. The insurer agrees, for a consideration, to assume to a specified extent the losses suffered by the insured. It is the reduction of individual risk which distinguishes insurance from other financial mechanisms.

## **Loss**

The amount paid on behalf of an insured under an insurance contract. In the context of this handbook, losses are the amounts a state program actually pays to do corrective action and settle third party damage claims.

## **Loss Reserves**

Loss reserves are funds set aside which represent an insurer's estimated liability for unpaid insurance claims or losses that have occurred as of a given valuation date. Loss reserves include reserves for known losses called case reserves. Loss reserves also include the estimated cost of losses which have been incurred but not reported which are referred to as IBNR.

## **Preferred Risk**

A preferred risk is any risk considered to be better than the average risk on which the standard premium rate was calculated. In the tank insurance area a preferred risk might refer to a newer tank constructed of noncorrosive materials, with a proven release detection mechanism maintained by a knowledgeable and conscientious operator. Insurers may have different views of what is or is not a preferred risk.

## **Premium**

A premium is the price paid for an insurance contract or policy. The notable feature of premiums is that they are usually priced to reflect the degree of risk which the insurer assumes when issuing a particular policy.

### **Primary Insurer**

Generally, the primary insurer is the carrier which pays from the first dollar, perhaps after the insured pays a deductible, as distinguished from the excess carrier, which pays only after primary coverage has been exhausted.

When reinsurance is used, the primary insurer is the company that originated the insurance business and issued policies to the insureds. It is also called the ceding company. The primary insurer may then transfer all or part of the risk it has assumed to another insurer called the reinsurer.

### **Program Elements**

As used in this handbook, program elements are those components of a state insurance program which affect the costs of the program or the income available to it. For example, type and level of coverage affect costs and the funding mechanism chosen affects income.

### **Reinsurance**

Reinsurance is a type of insurance that can be purchased by insurance carriers. It involves acceptance by an insurer, called the reinsurer, of all or part of the risk of loss covered by another insurer, called the ceding company. Reinsurance is a way for an insurer to protect itself from large or catastrophic losses and to increase the amount of insurance which it can afford to write.

### **Surplus**

Surplus is the amount by which an insurance program's assets exceed its liabilities. For the purpose of determining surplus, "liabilities" includes loss reserves for reported and unreported claims.

### **Underwriting**

Underwriting is the process of classifying risks according to degrees of insurability so that the appropriate rates can be assigned. The underwriting process also includes rejection of those risks that do not meet the minimum standards or underwriting criteria established by an insurer.

## APPENDIX B

## PROGRAM CHECKLIST

The following checklist is offered as a quick reference to some of the topics discussed in this handbook. The reviewer may refer back to the discussions in Chapters III and IV when considering particular elements and program options. The checklist can also be used when insurance program legislation is being drafted or reviewed.

## HAS THE STATE CONSIDERED....

## 1. Its Goals and Needs?

## 2. These Design Elements?

## Type of Participation

Mandatory

Voluntary

## Standards for Participation

Automatic Participation

Regulatory Compliance

Strict Underwriting

## Level of Coverage

Coverage to \$1 Million

Primary Layer of Coverage

Excess Layer of Coverage

## Type of Coverage

Corrective Action

On-Site

Off-Site

Third Party Claims

## Coverage of Existing Leaks

Existing Leaks Covered

Existing Leaks Not Covered

Known Leaks Not Covered

## Other Coverage Issues

Aggregate Limits

Use of Deductibles

Defense Costs

Occurrence-Based vs. Claims-Made Coverage

## 3. These Legal Issues?

Anti-Donation Clause

Limits on Indebtedness

Limits on Use of Gas Taxes

Preventing Raiding of Program Funds

Any Need for Constitutional Amendments



Applicability of Other State Laws  
Administrative Procedures Act  
Procurement Code  
Waivers of Sovereign Immunity  
Insurance Code  
Public Finance Code

**4. These Administrative Considerations?**

Governing the Program  
Independent Board or Agency  
Environmental Agency  
Insurance Department  
Managing the Program  
Agency Personnel  
Outside Firms with Expertise  
Powers of the Agency or Board, Such As:  
Issuing and Cancelling Insurance Policies  
Hiring Staff or Contractors  
Pursuing Reinsurance  
Purchasing Subrogation Claims  
Program Operations  
Information Dissemination/Marketing  
Information Management/Data Processing  
Accounting/Financial  
Underwriting Management  
Risk Management  
Claims Management  
Legal Services  
Duration of the Program  
Sunset Provision  
Paying Claims After Program Expires

**5. These Financial Requirements?**

Initial Capitalization  
Loss Reserves  
Administrative Costs  
Claims Handling and Defense Costs

**6. These Funding Options?**

Legislation Appropriations  
Assessments  
Premiums  
Per Tank Fees  
Gasoline Fees or Taxes  
Loans  
Bond Issues  
Interest  
Subrogation Recoveries

7. Protection Against Insolvency?

Reinsurance  
Assessments  
Reinstatement of Gas Tax or Fee or Per Tank Fee  
Participation in State Guaranty Association

HAS THE STATE CONSIDERED THESE IDEAS?

State Reinsurance Program  
Multi-State Program  
Joint Program Administration

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